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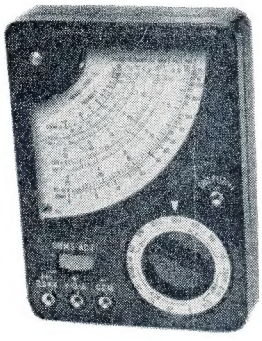

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Perfect **used** Collins 12v. d.c. mobile supply and KWM-2 mounting bracket, **£75.** Collins noise blanker, **£25.**

A BAND-SWITCHED ALL-TRIODE CONVERTER

GREG. JOHNSTON,* B.Sc.

HAVING always been somewhat of a "fiddler," and since my s.w.l. status does not allow me to fiddle effectively with other than receivers and receiver techniques, it is not surprising that we finally got to the stage of bread-boarding a receiver front end embodying circuitry which was once the acme of v.h.f. receiver technique in circuitry. It is stressed right from the start that my shack does not contain an abundance of test equipment in the form of noise generators and other such sophisticated pieces which makes the results obtained with the final article described very surprising (to me anyway!).

As the circuit will show, the r.f. stage finally settled on by trial and error is a 6ES8 non-neutralised series cascode[1] coupled into a second twin triode, this time a 12AT7, as a "Like New Mixer,"[2] while r.f. for conversion to the 3.5 Mc. i.f. is obtained from a 6C4 overtone crystal oscillator.

It is realised that the series cascode circuit has little advantage over a good pentode r.f. stage up to about 30 Mc. in terms of signal to noise ratio, however it is certainly less critical to adjust and is also less susceptible to cross modulation—a most important characteristic around my Amateur saturated QTH. In fact the 6ES8 offers a significant amount of extra usable gain when strong local signals would ride in on a pentode.

A neutralising coil between pins 1 and 8 may provide an instrument-detectable improvement in signal to noise ratio but is not used in my own case. A.v.c. can easily be applied to the first triode section if desired; it introduced no "bugs" here when applied. The circuit changes required are very minor and they may be useful in some situations. However, the author has found that without a.v.c. only the strongest of local s.s.b. stations will block the converter—the i.f. a.v.c. handles the situation adequately in other cases.

Moving on to the mixer stage, the 12AT7 forms the real heart of this particular converter—the authors of reference 2 make many claims on its behalf—in this case just for a change they were so well based that even this author was able to verify them in practice after some initial troubles with excessive oscillator voltage which did produce many spurious responses. It was also found that even higher oscillator voltages led to complete blocking. Two points well worth watching.

The really notable operative feature of this circuit though is summed up by this quote from the reference article: "Its noise figure is so low that mixer noise simply disappears even with three i.f. stages following. The result is almost complete silence between stations, leading one to believe at first that the circuit is a dud. Then, though, a fading long-hop signal will come through, moving almost instantly out of the no-signal region into clear audibility . . ." As with the r.f. stage, this circuit is not prone to cross-modulation in all but the most severe of cases, while its cathode follower output is very overload-tolerant so that mixer distortion does not appear.

During the course of fiddling, many varieties of oscillator circuits have been tested, but basically due to lack of a good dial drive a crystal locked overtone circuit was finally employed.[3]

The high impedance converter output is taken off in the 3.5 Mc. range and fed to the tunable i.f. via a yard long co-ax. cable.

The coil data shown was drawn from reference 3 to standardise the coil former size—my own coils are wound on a variety of formers which were to hand. It will probably be found that the VK2JZ data for mixer coils will result in resonance slightly higher than the desired frequency due to the very low input capacity of the 12AT7. Treatment here is symptomatic—add a few extra turns and prune to the desired frequency.

Having gone this far, the results of a few empirical (i.e. no instrument) tests may be of interest. A most effective test of sensitivity was made by tuning the converter to 28 Mc., removing the antenna and replacing it with a 75 ohm resistor (i.e. equal to feed-line impedance), then rocking the slug of the r.f. stage through resonance with the result that the noise peaked as the slug resonated the r.f. coil. If you reckon your own receiver is sensitive on 10 mx, then try this test—it may be enlightening.

At this stage, having demonstrated to my own satisfaction at least, the very adequate sensitivity of the converter, an equally savage on-air test of signal to noise ratio was arranged. The trial horse was a first class AR88 (not mine) which was tuned to a 40 mx signal—the converter was tuned to the same signal per a tunable oscillator it then sported. Even the owner of the AR88 freely admitted the superiority of the converter combination noise-wise—enough said.

A possible oscillator arrangement which, with adequate construction, care and compensation, would appeal to many would be to use a fixed i.f. of 3.5 Mc. and an oscillator range of 10.5-10.85 Mc. to tune 7.0-7.35 and 14.0-14.35 Mc., and 24.5-25.0 Mc. to tune 21.0-21.5 and 28.0-28.5 Mc. with appropriate r.f. and mixer coil switching. This idea was briefly employed initially but discarded for the reasons stated earlier.

In summary, it looks as though my urge to fiddle will be directed other than towards a new converter for some time hence. Meanwhile, I can sit back and read those S2 or S3 signals on 20 and 15 metres. Can you?

COIL DATA

All coils are wound on 7/16 inch diameter slug-tuned formers, with the r.f. primary (L1) spaced 1/16 inch from the secondary (L2).

7 Mc.:	L1— 7	turns,	32	B. & S.
	L2—55	,,	,,	,,
	L3—65	,,	,,	,,
	L4—35	,,	,,	,,
14 Mc.:	L1— 4	turns,	32	B. & S.
	L2—24	,,	,,	,,
	L3—24	,,	,,	,,
	L4—38	,,	,,	,,
21 Mc.:	L1— 4	turns,	32	B. & S.
	L2—15	,,	22	,,
	L3—15	,,	,,	,,
	L4—18	,,	32	,,
28 Mc.:	L1— 4	turns,	32	B. & S.
	L2—10	,,	22	,,
	L3—10	,,	,,	,,
	L4—13	,,	32	,,

CIRCUIT NOTES

AVC1—Only needed with a.v.c. connected, otherwise L2 goes direct to pin 2.

XTAL2—Crystal Frequencies:

	Fund.	Mult.
40 mx:	5250 kc.	x 2
20 mx:	5250 kc.	x 2
15 mx:	5333 kc.	x 3
10 mx:	8166 kc.	x 3

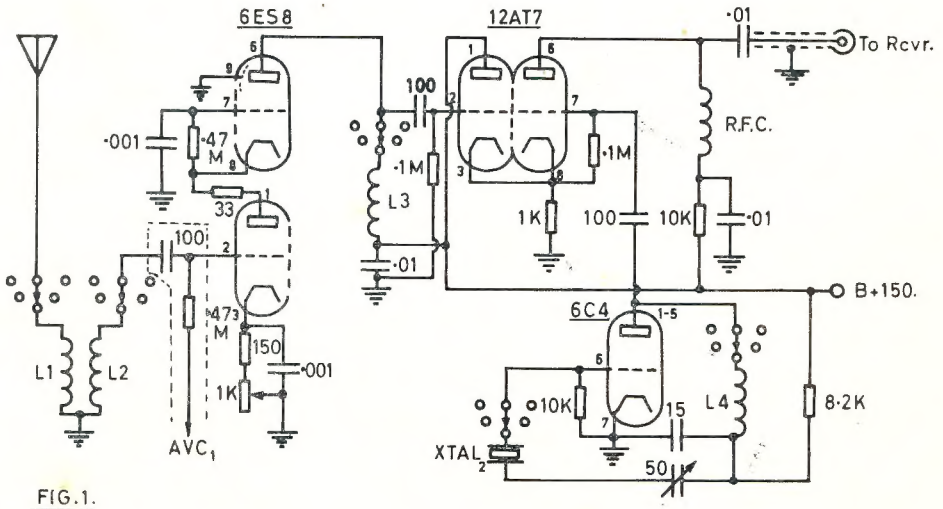

FIG.1.

* 3 Inglis Street, Newtown, Hobart, Tasmania.

[1] Parsons, Warwick W., "The S-9'er Mark II.," "Amateur Radio," November 1959, p. 7.

[2] Reprint from "73" Magazine, "Amateur Radio," June 1962, p. 4-5.

[3] Mather, A. S., "A Broad Band, Bandswitched, Crystal-Locked Converter," "Amateur Radio," June 1963, p. 2-3.

Single Package Transmitter for 160 and 2 Metres*

Developed by D. W. FURBY, G3EOH

THE design of the dual band transmitter to be described takes full advantage of the newly introduced power pentode type 7558. This valve, with an anode dissipation of 10 watts up to a maximum frequency of 175 Mc., may, from an Amateur point of view, be considered as an improved version of the popular 5763.

By an ingenious arrangement of the tuned circuits, no actual switching of the tuned circuits takes place when changing bands. As a result, not only is the efficiency of the various stages improved, especially at v.h.f., but in addition, construction is simplified.

The transmitter will run an input of 15 watts on 2 mx, but on 160 mx the input to the p.a. is restricted to 10 watts to meet the official power limitation in England.

Only the r.f. assembly is dealt with here since there are many published circuits of suitable modulators. An output of 8 watts will be adequate to modulate the carrier fully on 2 mx and have plenty of power in reserve for 160 mx.

CIRCUIT

Prior to examining the circuit (Fig. 1) in detail, it may be as well to review the functions of the individual valves in relation to the final frequencies. When operating on 1.8 Mc., V1 is not used, V2 functions as a Clapp variable frequency oscillator, V3 as a buffer amplifier, and V4 as the p.a. When operating on 144 Mc., V1 becomes a Colpitts crystal oscillator, V2 a frequency tripler, V3 a frequency doubler; V4 is of course the p.a.

As already mentioned, V1 only comes into operation when the transmitter is set for 144 Mc. The valve, a 6BW7, is used in a familiar Colpitts configuration in which the crystal oscillates on its fundamental frequency in the grid/cathode circuit with the screen grid forming the "anode" by-passed to r.f. The true anode of the valve is tuned to one of the harmonics of the crystal, in this case the third, which, with an 8 Mc. crystal, provides drive to the following stage at 24 Mc.

It will be noted that the cathode of V1 is returned to the centre of a capacity divider between grid and earth, the values of which depart from those usually associated with this circuit. In addition, the d.c. return of the cathode of the valve is via a resistor which replaces the r.f. choke normally fitted.

Experience with this type of oscillator used to drive v.h.f. transmitters is that it has a natural tendency to make the final frequency lower than that which would be expected from the simple arithmetic of multiplying the crystal frequency by the frequency multiplication factor. In practice this means that the parallel capacity across the crystal, whether intentional or stray, must be kept well within the normal 30 pF. limit.

The foregoing observations are pertinent to this design since the effective capacity across the crystal given by C1 and C2 in series amounts to 60 pF. This will be further increased by circuit stray capacities. The effect will be to cause the final frequency to be substantially lower than that expected from simple calculations. If specific final frequencies are required, crystals will have to be ordered to operate with a parallel capacity of 70 pF. Alternatively, C1 should be reduced to the usual value of 30 pF. and C2 to 100 pF. If the circuit then fails to oscillate with a resistive cathode load, R2 will have to be replaced with an r.f. choke.

The output from V1 is, for 144 Mc. operation, coupled via S1 to V2. The entire bandchanging operation is accomplished by S1, no other switching being required.

When V2 is operating as a tripler, drive is applied to its grid via S1. It should be noted that the grid leak, R3, is not returned to earth in the usual manner, but is connected to the cathode of V2, and that the resistor in the cathode of V2 (R4) is not a bias resistor, but is associated with the function of this valve when it operates as a Clapp v.f.o. on 1.8 Mc. This resistor, R4, does not have any degenerative effect when the valve operates as a multiplier since it is by-passed by C10 which forms part of the capacity divider of the v.f.o. circuit. Since R4 contributes no bias voltage to the valve, all the bias for the tripling operation is developed by the grid current through R3. If the drive fails, therefore, there could be a danger of the anode current of V2 running up to destruction levels. Since R4 in the cathode circuit is fairly large in value, the consequent voltage drop across this resistor under such conditions would automatically reduce the h.t. appearing across the valve and so limit the current. Nevertheless, V2 should not be operated without drive when switched to the 144 Mc. position.

The anode circuit of V2 when operating as a frequency multiplier is tuned to 72 Mc. The tuned circuit is unusual in that it is a pi-coupler, the shunt capacities of which are the output capacity of V2, and the input capacity of V3. Since the coil is resonated by these two capacities in series, the net capacity will be very small. This permits the use of a relatively large inductance, which, in itself, achieves broadband coverage so dispensing with the need for direct tuning. At this

* Reprinted from R.S.G.B. "Bulletin," Sept. '65.

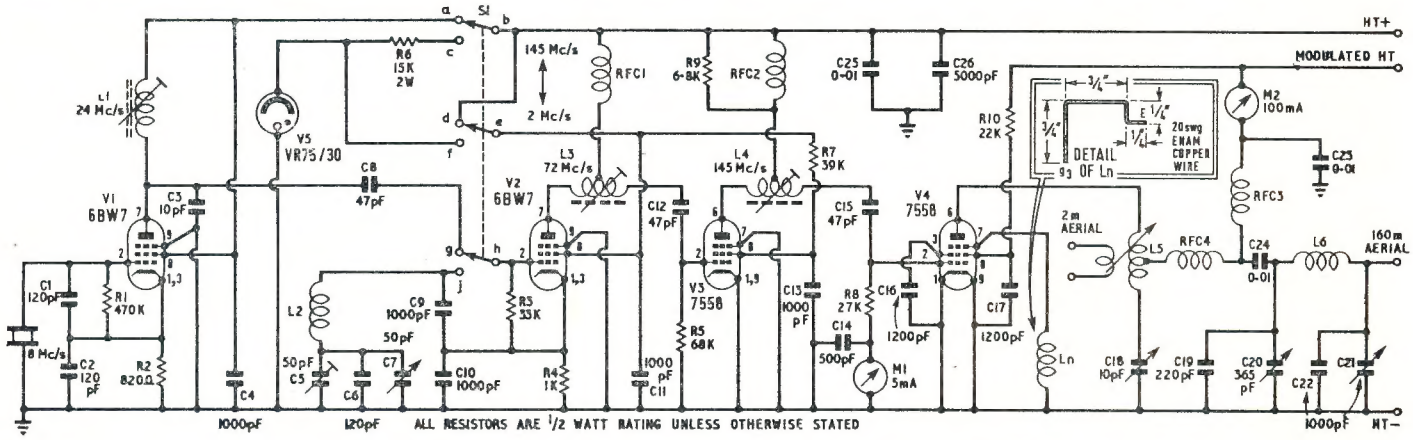

Fig. 1.—The circuit of the transmitter for operation on 160 and 2 metres.

L1—16 turns, 26 s.w.g. enamel, wound on Aladdin former 5961, with dust iron core.

L2—95 turns, 38 s.w.g. enamel, close wound on ½ in. former.

L3—21 turns tapped 10 turns from anode end, 26 s.w.g. enamel, wound on Aladdin former 5961, with brass core.

L4—6½ turns, tapped 3¾ turns from anode end, 20 s.w.g. enamel, wound on Aladdin former 5961, with brass core.

L5—5 turns, tapped 2½ turns from anode end, 20 s.w.g. enamel, ½ in. diam., ⅝ in. long, self supporting.

L6—36 turns, 18 s.w.g. enamel, 1½ in. diam., 2 in. long.

RFC1, RFC2—220 mH., Cambion type 2082-10.

RFC3—2.5 mH.

RFC4—40 turns, 30 s.w.g. e.s.s., wound on Aladdin former 5961, no core.

juncture it should be particularly noted that this coil L3 has a point of zero r.f. potential—nominally the physical centre of the coil—and use is made of this as will be seen.

When the transmitter is switched for Top Band operation, S1 converts V2 into a Clapp variable frequency oscillator by connecting the grid to the tuned circuit, L2, C5, C6, C7, and the capacity divider C9, C10. In addition, the voltage regulator V5 is switched into circuit, and the screen supply for V2 connected to this instead of directly to the h.t. line. This stabilises the operation of the v.f.o. and reduces the effect of variations in h.t. on the operation of the oscillator.

Mention has been made of the point of zero r.f. potential on L3. It is at this point that the h.t. is fed to V2 when it operates as a frequency multiplier, and the same point to which the load for the output of the v.f.o. is connected. The output load for the v.f.o. is RFC1. To the output frequencies of the v.f.o. L3 is just another piece of wire, and it has no effect upon the operation of the circuit. Thus the coupling capacitor C12 is effective for both frequencies.

V3 operates either as a frequency doubler, or as an untuned buffer.

For 144 Mc. operation, the output of V2 is coupled to V3 by a pi-network and C12, and V3 operates as a frequency doubler from 72 Mc. to 144 Mc. Like V2, V3 relies on grid current through its grid leak, R5, to give it the correct operating bias. The anode circuit of V3 consists of another pi-network similar to that in the anode of V2 except that it is tuned to 144 Mc.

When switched to Top Band operation, the screen grid of V3, which now operates as an untuned buffer amplifier, is connected to the stabilised supply instead of directly to the main h.t. Its output is thus reduced. Even with this procedure, the drive to the p.a. is still too high, and so a damping resistor is fitted across the r.f. choke anode load RFC2.

The p.a., V4, follows the practices established in the preceding stages. Grid current through the grid leak R8 provides the correct operating condition and a pi-network is used for the v.h.f. output, while the output circuit for Top Band is connected to the point of zero r.f. potential on this pi-network.

NOTES ON P.A.

There are one or two points which require special note in relation to the p.a.

First, since the valve is operated as a straight amplifier at v.h.f., it will require neutralising. In this circuit suppressor grid neutralisation is employed. This simply consists of an inductance connected in the suppressor earth return lead, and is shown in Fig. 1. While it would be possible to employ capacity neutralisation from the top of C18 back to the grid, the method shown is far easier to adjust and is more stable over a wider range of frequencies.

It must be particularly noted that two decoupling points are used on the screen grid of the p.a. valve. It is essential, if degeneration is to be avoided, that the screen grid has a low r.f. impedance to earth. To assist in this, both of the pins of the valve to which the screen grid is connected are by-passed individually.

The v.h.f. tank circuit is a pi-network tuned in this case at its "far end" by a 10 pF. variable capacitor C18. To this coil is fitted a variable link from which the 144 Mc. output is taken.

To the centre of the v.h.f. pi-network is connected a v.h.f. choke, RFC4. Note that the point to which this choke is connected to the coil is not by-passed. This is correct and not an omission. It is bad practice to by-pass this point in any v.h.f. tank circuit, and in this case it would be disastrous, as it would "drain off" the Top Band output.

The Top Band output circuit is a familiar pi-network connected to the centre of the v.h.f. tank circuit via the blocking capacitor C24 and the v.h.f. choke RFC4.

Metering in the transmitter is limited to measuring the p.a. grid and anode currents, and this is quite adequate. Indeed, a single meter could be used suitably shunted and switched.

HEATER WIRING

The power rating and power requirements of this transmitter make it particularly suitable for mobile operation, in addition to fixed station usage. For this reason, heater wiring is not shown. When operated on 6.3v., the heaters of the valves should all be in parallel.

When operated from a 12v. nominal source, such as a car battery, V1 and V2 should be wired in series, with pin 4 of V1 earthed, and pin 5 of V2 connected to the 12v. supply. Similarly, V3 and V4 should be wired in series with pin 5 of V4 earthed, and pin 4 of V3 to the supply. Pin 4 of V4 should be decoupled with a 5,000 pF. capacitor using very short leads. The two live leads from V2 and V4 are terminated on a 1,000 pF. feed-through capacitor, the far side of which provides an anchor point for the incoming heater supply.

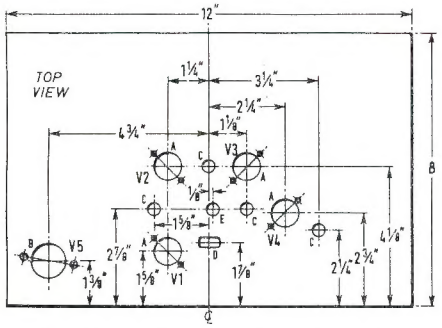

Fig. 2(a).—Top view of chassis plate.

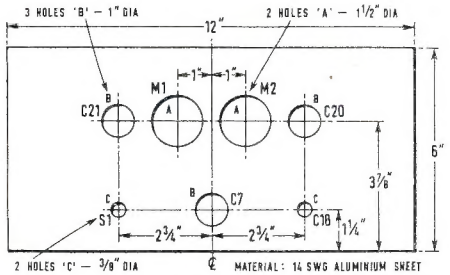

Fig. 2(b).—Front panel. The two holes M1 and M2 were cut for use with Shinohara meters, which are 1½ in. diameter.

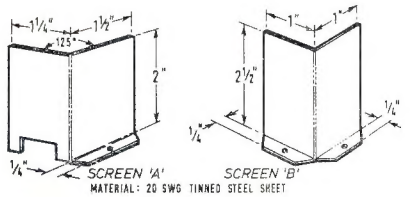

Fig. 2(c).—Screens A and B.

CONSTRUCTION

The transmitter is laid out on a chassis measuring 12" x 8" x 2¼" deep. In view of the difficulty of obtaining satisfactory earth connections to aluminium, this material should be avoided. Tinned steel or cadmium plated steel is far more satisfactory, or even sheet brass if one does not mind the somewhat higher cost. In actual fact the size of the chassis specified is quite a bit larger than that needed for just the r.f. section, and sufficient room has been allowed to accommodate both a modulator and power supply.

Fig. 2(a) shows the drilling layout of the chassis, while Fig. 2(b) details the panel layout and the two screens needed in the construction shown in Fig. 2(c). It should be noted that these diagrams do not make provision for power supply or modulator components.

All components associated with the operation of the transmitter on 144 Mc. should have leads as short as possible. The position of components associated with operation on 1.8 Mc. is, on the other hand, relatively unimportant.

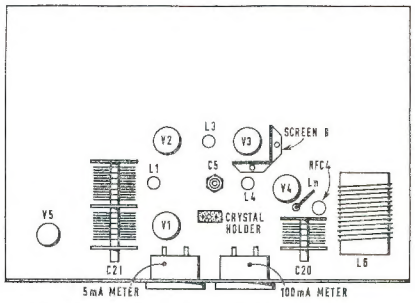

Fig. 3.—Layout of the principal components above the chassis.

In view of the comprehensive nature of the layout diagrams, Fig. 3, which shows the positions of the components mounted on the top of the chassis, and Fig. 4, the layout of the underside of the chassis, a wire by wire commentary should not be required. However, in relation to these two diagrams, it should be noted that not every single wire is shown, and when wires not illustrated are fitted, they should be routed according to the remarks made in the preceding paragraph.

TUNING PROCEDURE

Since self-bias is used throughout this transmitter, the unit must be tuned stage by stage. Apart from an absorption wavemeter to verify the frequency to which the respective stages are tuned, the most convenient method of ensuring correct tuning is by measuring the grid current to the succeeding stage. To assist in this, the earthy ends

(Continued on Page 8)

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Joymatch A.T.U. Type 5 for transmit only (rated 150 watts)	£2/10/0
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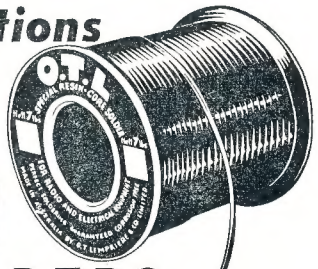

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MORE ABOUT MORSE

KENNETH L. GILLESPIE, VK3GK*

ANYONE can learn Morse. It needs only practice and the will to learn. It is a language of sounds like any other, but as the total number of these is in the order of forty plus, it is infinitely easier than French, German or—ugh—Latin.

Morse has been the greatest stumbling block ever to the full licence and looks like going on that way because of the difficulty in getting sufficient practice.

Practice is essential and the ideal is short periods, often, preferably several times a day, but at the very least, daily.

Apart from the good work done by the W.I.A. slow Morse sessions and a couple of individual Amateurs who transmit practice material, there does not seem to be much help about. Again the times of slow Morse transmissions may not always be convenient for many. There is a good W.I.A. tape service available but, then, not everyone has a tape machine so the would-be Morsee is left with trying to find something suitable on his receiver when he has a few moments to spare and usually ends up thoroughly disheartened because the commercials seem too fast.

There is no need to start running up the wall as there is one service that provides ideal learner practice, but you need to know where to find it and how to identify it when you hear it.

It is known as the Maritime Long Distance (H/F) Radio Telegraph Service and consists of bands of frequencies (most of them harmonically related) with a ship calling frequency, two small segments of ship working channels and a larger segment of coast station working frequencies. It is this latter we are interested in.

The service works like this. The coast stations and ships all listen to the calling frequency and when a ship wants to call a coast station he first listens to the station on **its** working frequency (which is always in use) and if he can hear it, calls on the calling frequency, and on establishing contact shifts to his own working frequency. For ship to ship they contact on the calling wave and shift to their respective working frequencies.

It is the "always in use" business of the coast station frequency that we want. The station, depending on the season and time of day, occupies several bands simultaneously sending nothing but CQ's (or V's) and their call sign over and over and over again. This not only keeps their channel clear, but if a ship can hear it he knows that he stands a good chance of being heard also. Now here we have plenty of practice material, all the figures and letters of the alphabet repeated for as many times as we care to listen. The list of frequency bands will show where to start looking for calls. When a signal is heard the beginner should wait until he can hear either a series of V's or CQ's and then identify one letter at a time of the call and on each succeeding repetition listen to the original letter(s) and identify a further one.

Incidentally, coast stations have three-letter calls while ship stations have four. Coast stations often suffix their calls with one or more numerals to indicate the bands in use at that moment. A call may be sent as follows: CQ CQ CQ DE VIX/3/4/5 VIX-3/4/5 VIX3/4/5 or alternatively, VVV VVV VVV DE ZLW6/8/12 ZLW6/8/12 ZLW6/8/12.

One of the best all round bands is the 8 Mc. and without trying hard I have heard quite a few countries. The list of some stations and their frequencies is included to give some idea of where to find one with respect to another. In addition as recognition becomes easier, traffic lists make good practice material. Coast stations, at hourly intervals (as a rule) and staggered times, send lists of ships for which they have traffic. Each call sign is sent twice so that, for our purpose, we can check that what we have identified is correct.

While any nationality has traffic for all ships, it will naturally have most for its own and of the remainder, more will belong to the major mercantile fleets of the world. For instance, VIS (Sydney Radio) will have a lot of G's and M's of Great Britain, J's of Japan, but most will be VJ, VK, VL, VM of our own with a sprinkling of HO and HP, I, K, L, P, S and W with only isolated calls for other ships. With call signs, traffic lists and perserverence (i.e. small sessions frequently—and don't let it get you down so that you throw in the towel), confidence and speed will come easily and before long the tyro has actually learned the code. He will be able to take weather reports, news sessions and the like as easily as hearing someone speaking.

Come on you Z calls, get cracking, and I will see you on the d.c. bands sometime.

COAST STATION WORKING FREQUENCY SEGMENTS

4238 to 4368 Kc.	12714 to 13130 Kc.
6357 to 6525 Kc.	16952 to 17290 Kc.
8476 to 8745 Kc.	22400 to 22650 Kc.

THE COMPLETE 8 Mc. BAND

8265-8354 Kc.—Passenger ship working.

8354-8374 Kc.—Calling band with 8364 as the calling and distress frequency.

8374-8476 Kc.—Cargo ship working.

8476-8745 Kc.—Coast station working.

For interest, with the exception of the 22 Mc. band, all calling frequencies are harmonically related, viz. 4182, 6273, 8364, 12546, 16728 and 22245 Kc.

SOME COAST STATION FREQUENCIES (Kc.)

8478—VIX and VHP Sydney; OST4 Ostende.
8482—DAN Norddeich; JCU.
8486—WOE Lantana; DZR Manilla.
8490—NPN Guam; IBQ.
8495—PZN Paramaribo, Surinam.
8498—SAG4 Gotenborg; NSS Washington.

8502—IQX Trieste; XSG Shanghai.
8510—IDR4 Rome.
8511.5—DAL Norddeich.
8514—WSL New York.
8522—VIS26; FFL4 St. Lys., France; JOR.
8526—WAX Ojus.
8538—PJK3.
8542—FUS.
8546—GKN Portishead.
8554—ZLB Awarua; CKN4 Vancouver.
8557—SPE4 Szczecin (Stettin).
8558—KFS San Francisco.
8562—PCH2 Schenvenigen.
8566—VPS Cape D'Aguilar (Hong Kong).
8570—WNU Slidell.
8574—LGB Bergen; HJU Buenaventura.
8582—KLB Seattle; XSW Kaohsiung, T'ai-wan.
8586—WCC Chatham.
8590—KOK Los Angeles.
8594—GYR Malta.

8602—HEZ.
8606—KSE Torrance.
8610—WSC Tuckerton; DZE Manilla.
8614—CKN Vancouver; GYC4 Whitehall.
8618—KPH Bolinas.
8630—GYS Singapore.
8634—SPH4 Gdynia.
8642—KPH Bolinas.
8646—LPD86 Buenos Aires; DZG Manilla.
8650—ICB Genoa.
8654—PCH4 Schenvenigen; JCS Chosi.
8658—WSL New York.
8660—DHS Rugen.
8662—VIS Sydney; CFH Halifax.
8666—KLC Galveston.
8670—IAR Rome.
8674—FFP3 Fort De France, Martinique.
8678—LFB Bergen; ZLP4 Wellington Naval Radio.
8682—EAD3 Aranjuez, Spain.
8686—JCT Chosi.
8690—VRP Suva.
8694—JZS3 Hollandia; PJC Curacao, Neth. Antilles.
8698—FJP8 Noumea.

8702—ZLW Wellington; NBA Balboa.
8706—JOS Nagasaki.
8714—KTK San Francisco; XSX Keelung, Formosa.
8718—VPW Singapore.
8726—OFJ Helsinki.
8730—CUB Madeira.
8742—HLP2 Pusan, Korea.

* Post Office Box 5, Clayton, Vic.

SINGLE PACKAGE XMITTER FOR 160 AND 2 METRES

(Continued from Page 5)

of the grid resistors of V2 and V3 should be temporarily disconnected.

Switch the transmitter for 144 Mc. operation and insert V1 and V2 into their sockets. Fit a suitable 8 Mc. xtal to the xtal socket. Switch on heater supply and apply h.t. to V1 only. With a meter set to its 2 mA. range, connected from the earthy end of R3 to the cathode of V2, adjust the core of L1 for maximum current indication on the meter. This should be about 1.2 mA. occurring when the core of L1 just starts to enter the winding.

Disconnect the h.t., re-connect R3 to the cathode of V2, and restore the h.t. supply connections to V2. Insert V3 and temporarily break the connections taking h.t. to the anode circuit and screen grid of this valve.

Connect the meter between the earthy end of R5 and chassis. Apply power to V1 and V2. Tune the brass slug of L3 for maximum grid current to V3. This should be of the order of 1 mA. Check that the frequency to which L3 is tuned is 72 Mc.

Remove the power, re-connect R5, and restore the h.t. supplies to V3. Insert V4 and disconnect the lead marked "modulated h.t." in Fig. 1 from the modulation transformer or the h.t. supply.

Apply power and tune L4 by means of the brass slug until maximum current is indicated on the grid current meter of V4. This should be about 0.2 mA. Check the frequency present in L4 by means of an absorption wavemeter.

Remove h.t. from the transmitter and restore the h.t. connection to the p.a. valve, V4.

Apply h.t. to the whole transmitter and rapidly tune C18 for maximum dip in the anode current to V4. Remove the h.t. Bring a wavemeter within reasonable distance of L5, apply power and quickly check that this circuit is tuned to 144 Mc.

With either an 80 ohm dummy load or a 144 Mc. aerial connected to the link winding of L5, adjust the position of the link until the p.a. draws 60-65 mA. Check the dip in anode current by tuning C18 slightly as the link is swung into position. If C18 has to be varied considerably from its initial setting as the link is progressively coupled to the p.a. tank circuit, look for a mismatch in either the dummy load or the aerial. In this respect an s.w.r. bridge will be found a useful adjunct. Once the p.a. is loaded, re-adjust L4 for maximum grid drive to V4.

To set up the transmitter for 1.8 Mc. operation, the first adjustments relate to the v.f.o.

Switch off the power and set S1 for 1.8 Mc. operation. Apply power via the stabiliser to the v.f.o. only. Set C7 to minimum capacity. Adjust C5 until the oscillator frequency is precisely 2 Mc. Set C7 to maximum capacity. Check the lower frequency to which the v.f.o. has now tuned. This will be below 1.8 Mc. Reduce the inductance of L2 by removing one turn at a time until the oscillator frequency is 1.8 Mc. Since removing turns from L2 will affect the highest frequency to which the v.f.o. will tune, after each adjustment to L2 check the highest frequency and adjust C5 so that this is 2 Mc. Repeat these adjustments in the order and manner given until the v.f.o. tunes 1.8-2 Mc.

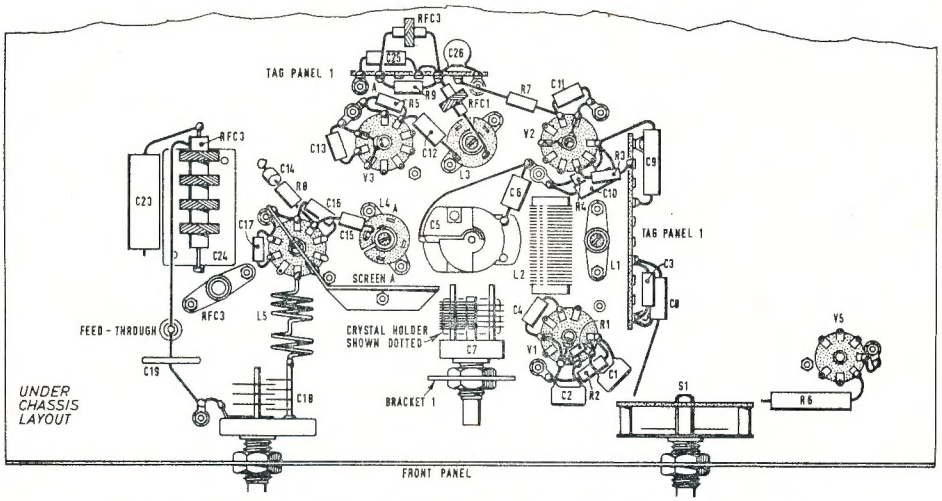

Fig. 4.—Positions of the sub-chassis components. Ample space is left for the inclusion of a simple modulator.

Apply power to the driver stages, and the v.f.o. and check the grid current to the p.a. If the chokes specified have been fitted, then the 6.8K ohm resistor across RFC2 will produce a grid current of 2 mA. to the p.a. If other chokes have been substituted, the value for the resistor to be fitted at R9 will have to be found by trial and error.

No special comments are required on the Top Band pi-network output circuit which functions in the normal manner.

CONCLUSION

As will be appreciated, this transmitter is of a very useful design in itself, but there would seem to be no reason why similar circuit configurations could not be successfully worked out for other powers and bands. The prime requirements are that the two frequencies involved should be fairly well divorced from each other.

NEW CALL SIGNS

SEPTEMBER 1965

VK2SS—T. Ivins, 63 Clarence St., Bankstown.
VK2VO—J. Summerhays, Russel St., Wollstonecraft.
VK2AAQ—C. Churm, 23 Third Ave., Epping.
VK2AHO—M. J. Kelly, 61 Ewing St., Murwillumbah.
VK2ARJ—H. J. Robinson, 2/19 Cooper St., Paddington.
VK2AVS—I. K. Dunlop, 7 James St., Murwillumbah.
VK2AWK—W. R. Penberthy, 3 Lyla St., Beverly Hills.
VK2AYS/T—W. A. Wilson, 3/265 Victoria St., Taree.
VK2ZAX—L. A. Maschette, 22 Phillip Rd., Raymond Terrace.
VK2ZMM—R. C. Milton, 6 High St., Cabramatta.
VK2ZPO—C. L. Scally, 64 Grafton St., Woollahra.
VK2ZSA—P. A. Smith, 44 Raleigh Ave., Caringbah.
VK3AGM—G. H. Loft, 36 Hopwood St., Echuca.
VK3ARO—R. W. G. Chalmers, 6 Gatehouse St., Parkville.
VK3ZPZ—L. A. Patterson, 33 Inkerman St., Maidstone.
VK3ZWR—P. W. Thorp, 128 Glen Iris Rd., Glen Iris.
VK4BD—A. B. Doran, 25 Telegraph Rd., Bald Hills.
VK4YS—Goondiwindi Scout Troop Radio Club, 33 McLean St., Goondiwindi.
VK5EL—A. G. Landers, 78 Grant Ave., Rose Park.
VK5EW—A. B. Foster, 10 Haldane St., Elizabeth Downs.
VK5QS—Radio Trade School, Meyer St., Torrensville.
VK5XH—R. D. Hall, Snow's Rd., Stirling West.
VK5ZIR—R. W. Edwards, 4 Leonard St., Edwardstown.
VK6ZAJ—G. Drage, 249 Jersey St., Wembley.
VK6ZFA—M. J. Garth, Babbage Island Rd., Carnarvon.

— • • • —

Publications Committee Reports That . . .

All inwards correspondence received after 3rd December, 1965, will be acknowledged in the February issue of "A.R." The fact that the January issue had an earlier copy date was overlooked by many readers.

The February issue of "A.R." will be mailed about mid February, hence you should not expect this particular issue at the beginning of the month. The various Notes will not appear in this issue due to the holiday period at our printers so readers should forward the next lot of notes by 5th February, 1966, for inclusion in the March issue of "A.R." The "Call Book" should be issued in February after a delay beyond our control.

Arrangements have been made to commence this issue with a new cover design which will mean that future issues of "A.R." will not feature a photo on the front cover. The saving in cost so achieved will permit the regular introduction of the Propagation Charts in the February issue of "A.R."

Have fun, take care and enjoy your holiday break. Accidents just don't happen, they occur through some oversight on your part, so don't become an accident statistic, remove yourself in time. Happy New Year to all from the Com. Pub., sorry, Pub. Com.

— • • • —

HINTS AND KINKS

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A SELF POWERED C.W. MONITOR*

or Look Maw! No Batteries!

OTIS WRENCH, WOMQB

AS every c.w. operator that has ever worked me knows, I have a lousy fist, and it is even lousier if my code monitor is not working. I've always had one (code monitor, that is) albeit my tale of woe and frustration has its silver lining and happy ending.

I've always been a strong adherent to the principle of versatility. Not only does it save the cost of chassis pans, panels, cabinets and bumper feet, but there is a great deal of satisfaction in having a piece of equipment that will do umpteen dozen things. Not all at once, mind you, but it will do them, one at a time. It also keeps the XYL interested, because she has her eye on that chassis if I ever salvage it. She says she is going to use it for a cullender some day.

If my code monitor was anything, it was versatile. It was also a very satisfactory code monitor at certain times. But it had seven double pole double throw toggle switches on the front panel and one double pole double throw slide switch. (I had depleted my supply of toggle switches.) Also a speaker, a meter, a phone jack, a pitch control knob, a meter adjust knob, a dial for the code monitor input capacitor, a dial for the variable oscillator, a dial for the doubler, tripler stage, a five-position band switch and two crystal sockets, plus three tally lights. Oh yes, also two pots and two banana jacks on the back panel, but I've long since forgotten what they were for.

It was a joy to behold. It was a code monitor and an a.m. monitor. You only had to plug in a headset to monitor phone. It was field strength meter that worked fine. I transistorised that part of it several years ago when transistors first became available at bargain prices. It was also a 100 Kc. and 1,000 Kc. crystal calibrator, with and without tone modulation. (A double pole double throw switch selected that mode of operation.) It had two crystal sockets on the front panel for the most popular types (with me) of holders. That stage was a type of Pierce oscillator, untuned, and the meter could be switched from the field strength position to read a portion of the grid voltage, and hence give an indication of the activity of the crystal.

There was a variable oscillator in it, covering the low frequency range, which I thought I needed to align my BC453. However, I was never quite sure of the calibration of this low frequency oscillator, and never used it. (It's coming out on the next modification.) Also there was a tuned doubler, tripler, quadrupler (?) stage which could be fed by either the Test Xtal or Calibrate Xtal stage by throwing the appropriate switches in the right direction, and which would give me marker points down to 6 metres, depending, of course, on which crystal I was using at the time. It could also be used as a single frequency audio oscillator and as a code practice oscillator.

Now, isn't that a humdinger? What more could you ask for on one little 8" x 10" panel? The only problem was that after it had set there for a while, I forgot which switch to throw which way to get the code monitor to work.

One evening while in the middle of my third QSO (and I still hadn't thrown the right switches to get the code monitor turned on) I had a happy thought. Why not build a separate code monitor? What evolved was placed in a 4" x 5" x 3" aluminium box.

I did and the circuit is shown in Fig. 1. Most of the parts were scrounged from a defunct transistorised radio. Capacitor C1 is the tuning capacitor with both sections paralleled. There are no numbers on the transistor; they were rubbed off long ago, but it is a p.n.p. type. I can't decipher the code on the diode either so any type you have will probably do.

One disappointment in the works. I bought a red banana plug and jack and ripped up a cute little 18" whip antenna that sticks up out of the top. My 55 watt rig wasn't quite powerful enough. It just wasn't loud enough. I tied about 10 feet of wire to the whip, and now it is just right. I measured the voltage at the top of the 2 μF. capacitor and found that it was approximately 5 volts, using the 10 ft. piece of wire for an antenna.

It would startle me at first. I would close the key to test the transmitter, and it would immediately start squalling like a junior op. that had been stepped on, and I knew I hadn't turned it on. But then you will get used to it after coming back to turn it off a few times, and you will glory in it, and say, "Look, Maw! It don't run up no light bill and you don't have to buy no batteries! It's free!"

And, incidentally, if you build one of these and it doesn't work, don't write me. I didn't have to troubleshoot mine either time. Fortunately it worked both times I put it together. When I haywired it together and when I put it in the box.

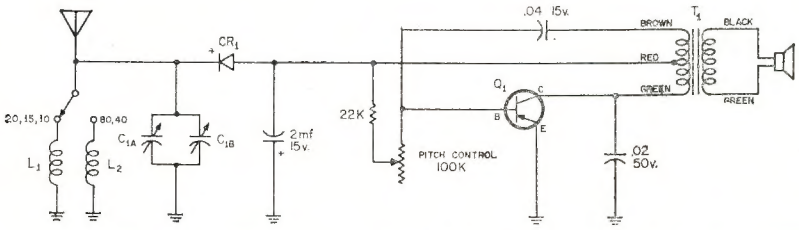

Fig. 1.—Circuit of a self powered c.w. monitor. Most of the components, speaker included, are salvaged from an old transistor radio.

C1—See text.
L1—8 turns, 24 gauge enamel on ½ inch diam. poly. rod.
L2—40 turns 24 gauge enamel on other end of L1 rod.
T1—Lafayette TR-99.
Q1—Any audio type p.n.p. See text.

If you use an n.p.n. type transistor simply reverse the diode polarity and it will work also.

I originally had intended to power it with batteries, and I haywired the oscillator section together first. Testing it with a depleted pen light cell I had taken out of my Tunnel Dipper, it gave out a weak chirp.

At that point I had another wild idea. Suppose I could power it from the air? I hastily wired up the front section, and clipping a test lead on the top of the capacitor for an antenna, I turned the transmitter on. It sat there and squalled like a harmonic with a wet diaper.

From that point on, it was a matter of taking it apart and putting it back together in the box, applying the decals, and setting it on the operating desk in front of me.

If you want to visit, I'll show you mine, and prove that it does work. I'll even take the back cover off so you can see there aren't any batteries in it! Good luck, OM es 73.

☆

ERRATA

In the article "Some 6-Metre Antennae" (Dec. '65 "A.R.") the length of the 50 ohm matching stub should be 35½ inches **not** 52 inches, as in Fig. 1.

Also Fig. 2, mentioned in the text (third paragraph) does not refer to the diagram marked Fig. 2. It should be Fig. 1 as a Gamma-match obviously has nothing to do with a Q-match. The Q-match details should be clear from Fig. 2.

* Reprinted from "CQ," August 1965.

WARBURTON FRANKI

● MULTIMETERS—200H

Fan shaped meter movement.

Ranges: DCV—5, 25, 50, 250, 2,500 at 20K o.p.v.
ACV—10, 50, 100, 500, 1,000 at 10K o.p.v.
DC mA.—50 μA., 2.5 mA., 250 mA.
OHMS—600, 600K.
CAP.—10 pF. to 0.1 μF.
DB—Minus 20 to plus 22.

Supplied with leads and instruction leaflet.

95/- ($9.50)

Plus S/T 12½%. Pack and Post 1/6.

● TRANSISTOR AMPLIFIER—SINCLAIR X-20 PULSE-WIDTH MODULATED AMPLIFIER AND PRE-AMP. OPEN MATRIX BOARD CONSTRUCTION

12 Transistors, size 8¼ x 3¼ x 1 in. Weight 4 ozs.

Input sensitivity—1 mV. into 5,000 ohms.
Total harmonic distortion—Less than 0.1% at 10w.
Frequency response at all power levels—20 c/s. to 20 Kc. plus 1 db.
Damping Factor—greater than 100.
Quiescent consumption—approx. 150 mA.
Supply Voltage—28 to 37 volts (7.5 ohm speaker).
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Output Power—7.5 ohm Speaker, 20 watts r.m.s. music power.
15 ohm Speaker. 15 watts r.m.s. music power.
Supplied with comprehensive descriptive booklet showing circuit and recommended circuitry for volume and tone controls.

£13/5/0 ($26.50)

Plus S/T 25%. Pack and Post 1/-.

A.C. POWER SUPPLY TO SUIT—

(Will supply two Amplifiers for Stereo use)

£6/6/0 ($12.60)

Plus S/T 12½%. Pack and Post 2/6.

● MULTIMETERS—SANWA 370-X

Ranges: DCV—3, 6, 12, 120, 300, 1,200, 3,000 at 4K o.p.v.
ACV—6, 12, 120, 300, 1,200, 3,000 at 4K o.p.v.
DC mA.—0.3, 3, 30, 300.
DC Amps.—3, 12.
AC Amps.—3, 12.
OHMS—10K, 100K, 1 meg., 10 meg.
DB—Minus 10 to plus 17.
Minus 0 to plus 23.

Supplied with two pairs of test leads and comprehensive instruction booklet.

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Wooden Carrying Case to suit. Well made with safety lock and removable lid.

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STOCKTAKING BARGAINS

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ALSO 1 amp. at 1,000 p.i.v.

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● VARIABLE CONDENSERS

100 pF. maximum, 17 plates, ¼" shaft.

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● KNIFE SWITCHES

Double pole with spark gap. 4" x 1⅜".

5/7 (56c)

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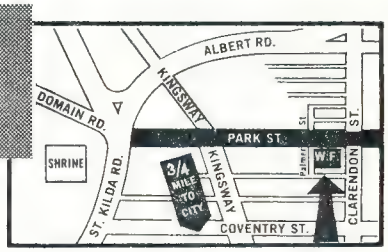

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AUSTRALIAN DX CENTURY CLUB AWARD

OBJECTS

1.1 This Award was created in order to stimulate interest in working DX in Australia and to give successful applicants some tangible recognition of their achievements.

1.2 This Award, to be known as the "DX Century Club" Award, will be issued to any Australian Amateur who satisfies the following conditions.

1.3 A certificate of the Award will be issued to the applicants who show proof of having contacted one hundred countries, and will be endorsed as necessary, for contacts made using only one type of emission.

REQUIREMENTS

2.1 Verifications are required from one hundred different countries as shown in the Official Countries List.

2.2 The Official Countries List will be published annually in "Amateur Radio" and will be amended from time to time as required. Should a country be deleted from the Countries List at any time, members and intending members will be credited with such country if the date of contact was before such deletion.

2.3 The commencing date for the Award is 1st January 1946. All contacts made on or after this date may be included.

OPERATION

3.1 Contacts must be made in the H.F. Band (Band 7) which extends from 3 to 30 Mc., but such contacts must only be made in the authorised Amateur Bands in Band 7.

3.2 All contacts must be two-way contacts on the same band. Cross band contacts will not be allowed.

3.3 Contacts may be made using any authorised type of emission for the band concerned.

3.4 Credit may only be claimed for contacts with stations using regularly-assigned Government call signs for the country concerned.

3.5 Contacts made with ship or aircraft stations will not be allowed, but land-mobile stations may be claimed provided their specific location at the time of contact is clearly shown on the vertification.

3.6 All stations must be contacted from the same call area by the applicant, although if the call sign is subsequently changed, contacts will be allowed under the new call sign providing the applicant is still in the same call area.

3.7 All contacts must be made when operating in accordance with the Regulations laid down in the "Handbook for the Guidance of Operators of Amateur Wireless Stations" or its successor.

VERIFICATIONS

4.1 It will be necessary for the applicant to produce verifications in the form of QSL cards or other written evidence showing that two-way contacts have taken place.

4.2 Each verification submitted must be exactly as received from the station contacted, and altered or forged verifications will be grounds for disqualification of the applicant.

4.3 Each verification submitted must show the date and time of contact, type of emission and frequency band used, the report and the location or address of the station at the time of contact.

4.4 A check list must accompany every application setting out the details for each claimed station in accordance with the details required in Rule 4.3.

APPLICATIONS

5.1 Applications for membership shall be addressed to the Awards Officer, Box 2611W, G.P.O., Melbourne, Vic., accompanied by the verifications and the check list with sufficient postage enclosed for their return to the applicant, registration being included if desired.

5.2 A nominal charge of 2/6, which shall also be forwarded with the application, will be made for the issue of the certificate to successful applicants who are non-members of the Wireless Institute of Australia.

5.3 Successful applicants will be listed periodically in "Amateur Radio". Members of the D.X.C.C. wishing to have their verified country totals, over and above the one hundred necessary for membership, listed will notify these totals to the Awards Officer.

5.4 In all cases of dispute, the decision of the Awards Officer and two members of the Federal Executive of the W.I.A. in the interpretation and application of these Rules shall be final and binding.

5.5 Notwithstanding anything to the contrary in these Rules, the Federal Council of the W.I.A. reserves the right to amend them when necessary.

AUSTRALIAN V.H.F. CENTURY CLUB AWARD

OBJECTS

1.1 This Award has been created in order to stimulate interest in the V.H.F. bands in Australia, and to give successful applicants some tangible recognition of their achievements.

1.2 This Award, to be known as the "V.H.F. Century Club" Award, will be issued to any Australian Amateur who satisfies the following conditions.

1.3 Certificates of the Award will be issued to the applicants who show proof of having made one hundred contacts on the V.H.F. bands, and will be endorsed as necessary, for contacts made using only one type of emission.

REQUIREMENTS

2.1 Contacts must be made in the V.H.F. Band (Band 8) which extends from 30 to 300 Mc., but such contacts must only be made in the authorised Amateur Bands in Band 8.

2.2 In the case of the authorised bands between 30 and 100 Mc., verifications are required from one hundred different stations at least seventy of which must be Australian. The Amateur Bands 50 to 54 Mc. and 56 to 60 Mc. will be counted as one band for the purposes of the Award.

2.3 In the case of the authorised Amateur Band between 100 to 200 Mc. and any authorised band between 200 to 300 Mc., verifications from one hundred different stations for each band is required.

2.4 It is possible under these rules for one applicant to receive three certificates, one for each of the authorised Amateur Bands nominated in Rules 2.2 and 2.3.

2.5 The commencing date for the Award is 1st June, 1948. All contacts made on or after this date may be included.

OPERATION

3.1 All contacts must be two-way contacts on the same band, and cross band contacts will not be allowed.

3.2 Contacts may be made using any authorised type of emission for the band concerned.

3.3 Fixed stations may contact portable/mobile stations and vice versa, but portable/mobile station applicants must make their contacts from within the same call area.

3.4 Applicants, when operating either portable/mobile or fixed, may contact the same station licensee, but may not include both contacts for the same type of endorsement.

3.5 Applicants may only count one contact for a station worked as a limited licensee with a Z call sign who is subsequently contacted as a full A.O.C.P. holder.

3.6 All stations must be contacted from the same call area by the applicant, although if the applicant's call sign is subsequently changed, contacts will be allowed under the new call sign providing the applicant is still in the same call area.

3.7 All contacts must be made when operating in accordance with the Regulations laid down in the "Handbook for the Guidance of Operators of Amateur Wireless Stations" or its successor.

VERIFICATIONS

4.1 It will be necessary for the applicant to produce verifications in the form of QSL cards or other written evidence showing that two-way contacts have taken place.

4.2 Each verification submitted must be exactly as received from the station contacted, and altered or forged verifications will be grounds for disqualification of the applicant.

4.3 Each verification submitted must show the date and time of contact, type of emission and frequency band used, the report and the location or address of the station at the time of contact.

4.4 A check list must accompany every application setting out the following details:—

4.4.1 Applicant's name and call sign, and whether a member of the W.I.A. or not.

4.4.2 Band for which application is made, and whether special endorsement is involved.

4.4.3 Where applicable, the date of change of call sign and previous call sign.

4.4.4 Details of each contact as required by Rule 4.3.

4.4.5 The applicant's location at the time of each contact if portable/mobile operation is involved.

4.4.6 Any relevant details of any contact about which some doubt might exist.

APPLICATIONS

5.1 Applications for membership shall be addressed to the Awards Officer, Box 2611W, G.P.O., Melbourne, Vic., accompanied by the verifications and the check list with sufficient postage enclosed for their return to the applicant, registration being included if desired.

5.2 A nominal charge of 2/6, which shall also be forwarded with the application, will be made for the issue of the certificate to successful applicants who are non-members of the Wireless Institute of Australia.

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5.5 Notwithstanding anything to the contrary in these Rules, the Federal Council of the W.I.A. reserves the right to amend them when necessary.

AUSTRALIAN D.X.C.C. COUNTRIES LIST

	Phone	C.W.
AC3 Sikkim		
AC4 Tibet		
AC5 Bhutan		
AP East Pakistan		
AP West Pakistan		
BV (C3) Formosa		
BY (C) China		
C9 (prior 1/1/64) Manchuria		
CE Chile		
CE9, KC4, LU-Z, VK0, VP8, ZL5 etc., Antarctica		
CE0A Easter I.		
CE0X St. Felix I.		
CE0Z J. Fernandez Arch.		
CM, CO Cuba		
CN2 (prior 1/7/60) Tangier		
CN2, 8, 9 Morocco		
CP Bolivia		
CR3 Portuguese Guinea		
CR4 Cape Verde Is.		
CR5 Principe, Sao Thome		
CR6 Angola		
CR7 Mozambique		
CR8 (prior 1/1/62) Goa		
CR8, 10 Port. Timor		
CR9 Macao		
CT1 Portugal		
CT2 Azores		
CT3 Madeira Is.		
CX Uruguay		
DJ, DL, DM Germany		
DU Philippine Is.		
EA Spain		
EA6 Balearic Is.		
EA8 Canary Is.		
EA9 Ifni		
EA9 Rio de Oro		
EA9 Spanish Morocco		
EA0 Spanish Guinea		
EI Rep. of Ireland		
EL Liberia		
EP, EQ Iran		
ET2 (prior 14/11/62) Eritrea		
ET2, 3, 9E Ethiopia		
F France		
FB8 A'dam & St. Paul Is.		
FB8 Crozet Is.		
FB8 Kerguelen Is.		
FC Corsica		
*FF8 French West Africa		
TU2 (fr. 7/8/60) Ivory Coast R.		
TY2 (fr. 1/8/60) Dahomey Rep.		
TZ2 (from 20/6/60) Mali Rep.		
XT2 (from 5/8/60) Voltaic Rep.		
5U7 (from 3/8/60) Niger Rep.		
5T5 (from 20/6/60) Mauritania		
6W8 (fr. 20/6/60) Senegal Rep.		
FG7 Guadeloupe		

	Phone	C.W.
FH8 Comoro Is.		
FI8 (pr'r 20/7/55) Fr. Indo China		
FK8 New Caledonia		
FL8 Fr. Somaliland		
FM7 Martinique		
FN (prior 1/11/54) French India		
FO8 Clipperton I.		
FO8 Fr. Oceania		
FP8 St. Pierre & Miq. Is.		
*FQ8 Fr. Equatorial Africa		
TL8 (fr. 13/8/60) Cen. Afric. R.		
TN8 (from 15/8/60) Congo Rep.		
TR8 (from 17/8/60) Gabon Rep.		
TT8 (from 11/8/60) Chad Rep.		
FR7 (from 25/6/60) Glorioso I.		
FR7 (from 25/6/60) Juan de Nova and Europa Is.		
FR7 Reunion I.		
FR7 Tromelin Is.		
FS7 Saint Martin		
FU8, YJ1, 8 New Hebrides		
FW8 Wallis & Futuna Is.		
FY7 Fr. Guiana & Inini		
G England		
GC Guernsey and Deps.		
GC Jersey I.		
GD Isle of Man		
GI Northern Ireland		
GM Scotland		
GW Wales		
HA Hungary		
HB Switzerland		
HC Ecuador		
HC8E Ebon Atoll		
HC8G Galapagos Is.		
HB0 (HE) Liechtenstein		
HH Haiti		
HI Dominican Rep.		
HK, 5J Colombia		
HK0 Arch. of San Andres and Providencia		
HK0 Bajo Nuevo		
HK0 Malpelo Is.		
HL, HM, 6N5 Korea		
HP Panama		
HR Honduras		
HS Thailand		
HV Vatican		
HZ (see 7Z)		
I1, IT1 Italy		
I1 (prior 1/4/57) Trieste		
I5 (prior 1/7/60) It. Somaliland		
IS1 Sardinia		
JA, KA Japan		
JT1 Mongolia		
JY Jordan		
JZ0 (pr'r 1/5/63) W. New Guinea		
K, W U.S.A.		

* Fr. West Africa and Fr. Equatorial Africa: Only contacts dated prior to when the particular area obtained separate listing (as shown) will count.

	Phone	C.W.
KA0, KG6I Bonin & Volcano Is.		
KB6 Baker, Howland and Am. Phoenix I. (inc. Canton I.)		
KC4 Navassa I.		
KC6 Eastern Caroline Is.		
KC6 Western Caroline Is.		
KG4 Guantanamo Bay		
KG6 Guam		
KG6 Marcus I.		
KG6 (Rota, Tinian, Saipan, etc.) Mariana Is.		
KH6 Hawaiian Is.		
KH6 Kure I.		
KJ6 Johnston I.		
KL7 Alaska		
KM6 Midway Is.		
KP4 Puerto Rico		
KP6 Palmyra Group, Jarvis I.		
KR6 Ryukyu Is.		
KS4B Ser'na Bank & Roncad Cay		
KS4 Swan Is.		
KS6 American Samoa		
KV4 Virgin Is.		
KW6 Wake I.		
KX6 Marshall Is.		
KZ5 Canal Zone		
LA Bouvet I.		
LA Jan Mayen		
LA Norway		
LA Svalbard		
LU Argentina		
LX Luxembourg		
LZ Bulgaria		
MP4 Bahrein		
MP4 Qatar		
MP4 Trucial Oman		
OA Peru		
OD5 Lebanon		
OE Austria		
OH Finland		
OH0 Aland Is.		
OK Czechoslovakia		
ON4 Belgium		
OX, KG1 Greenland		
OY Faeroes		
OZ Denmark		
PA0, PI1 Netherlands		
PJ Neth. West Indies		
PJ2M Sint Maarten		
PK1, 2, 3 (prior 1/5/63) Java		
PK4 (prior 1/5/63) Sumatra		
PK5 (prior 1/5/63) Borneo		
PK6 (prior 1/5/63) Celebes and Molucca Is.		
PX Andorra		
PY Brazil		
PY0 Fernando de Noronha		
PY0 St. Peter & Paul Rocks		
PY0 Trindade & Martin Vaz Is.		
PZ1 Netherlands Guiana		
SL, SM Sweden		
SP Poland		

	Phone	C.W.
ST2 Sudan		
SU Egypt		
SV Crete		
SV Dodecanese		
SV Greece		
TA Turkey		
TF Iceland		
TG Guatemala		
TI Costa Rica		
TJ9 Cocos I.		
TI9C Cormoran Reef		
TJ (FE8) Cameroon Rep.		
TL, TN, TR, TT (see after FQ8)		
TS (3V8) Tunisia		
TU, TY, TZ (see after FF8)		
UA1-6, UN1 Eur. R.S.F.S.R.		
UA1 Franz Josef Land		
UA2 Kaliningrad Region		
UA9, 0 Asiatic R.S.F.S.R.		
UB5 Ukraine		
UC2 White Russian S.S.R.		
UD6 Azerbaijan		
UF6 Georgia		
UG6 Armenia		
UH8 Turkoman		
UI8 Uzbek		
UJ8 Tadzhik		
UL7 Kazakh		
UM8 Kirghiz		
UN1 (prior 1/7/60) Kar-Fin.Rep.		
UO5 Moldavia		
UP2 Lithuania		
UQ2 Latvia		
UR2 Estonia		
VE, VO Canada		
VK Australia		
VK2 Lord Howe Is.		
VK4 Willis Is.		
VK9 Christmas I.		
VK9 Cocos Is.		
VK9 Nauru I.		
VK9 Norfolk I.		
VK9 Papua Terr.		
VK9 Terr. of New Guinea		
VK0 Heard I.		
VK0 Macquarie I.		
VO (prior 1/4/49) Newf./Lab.		
VP1 British Honduras		
‡VP2 (prior 1/6/58) Leeward Is.		
VP2 Anguilla		
VP2 Antigua, Barbuda		
VP2 Br. Virgin Is.		
VP2 Montserrat		
VP2 St. Kitts, Nevis		
‡VP2 (prior 1/6/58) Windw'd Is.		
VP2 Dominica		
VP2 Grenada & Deps.		
VP2 St. Lucia		
VP2 St. Vincent & Deps.		
VP3 British Guiana		
VP4 Trinidad & Tobago		

‡ One contact with each group formerly known as "Leeward Is." and "Windward Is." dated prior to 1/6/58 may be credited, in which case no further credit as a separate listing, as from 1/6/58, will be given those particular islands.

	Phone	C.W.
VP5	Cayman Is.	
VP5	Turks & Caicos Is.	
VP6	Barbados	
VP7	Bahama Is.	
VP8	Falkland Is.	
VP8, LU-Z	South Georgia	
VP8, LU-Z	South Orkney Is.	
VP8, LU-Z	South Sandwich Is.	
VP8, LU-Z, CE9	Sth. Shet. Is.	
VP9	Bermuda Is.	
VQ6 (prior 1/7/60)	Br. Somalil'd	
VQ8	Agalega & St. Brandon	
VQ8	Chagos Is.	
VQ8	Mauritius	
VQ8	Rodriguez I.	
VQ9	Aldabra Is.	
VQ9	Seychelles	
VR1 (includ. Canton Is.)	British Phoenix Is.	
VR1	Gilbert & Ellice Is., Ocean Is.	
VR2	Fiji Is.	
VR3	Fanning & Christmas Is.	
VR4	Solomon Is.	
VR5	Tonga Is.	
VR6	Pitcairn I.	
VS4 (prior 16/9/63)	Sarawak	
VS5	Brunei	
VS6	Hong Kong	
VS9	Aden & Socotra	
VS9	Kamaran Is.	
VS9	Kuria Muria	
VS9	Maldive Is.	
VS9	Sultanate of Oman	
VU2	India	
VU	Laccadive Is.	
VU	Andaman & Nicobar Is.	
XE, XF	Mexico	
XF4	Revilla Gigedo	
XT2 (see after FF8)		
XU	Cambodia	
XW8	Laos	
XZ2	Burma	
YA	Afghanistan	
YI	Iraq	
YK	Syria	
YN, YN0	Nicaragua	
YO	Roumania	
YS	Salvador	
YU	Yugoslavia	
YV	Venezuela	
YV0	Aves I.	
ZA	Albania	
ZB1 (see 9H1)		
ZB2	Gibraltar	
ZC5 (pr. 16/9/63)	Br. Nth. Borneo	
ZC6	Palestine	
ZD3	The Gambia	
ZD4 (pr. 5/3/57)	Gold Coast, Togo.	
ZD5 (ZS7)	Swaziland	
ZD7	St. Helena	
ZD8	Ascension Is.	
ZD9	T. da Cunha and Gough Is.	
ZE	Southern Rhodesia	

	Phone	C.W.
ZK1	Cook Is.	
ZK1	Manihiki Is.	
ZK2	Niue	
ZL	Chatham Is.	
ZL	New Zealand	
ZL1	Kermadec Is.	
ZL4	Auckland and Campbell Is.	
ZM7	Tokelaus	
ZP	Paraguay	
ZS1, 2, 4, 5, 6	Rep. of S. Africa	
ZS2	Prince Ed. and Marion I.	
ZS3	South-West Africa	
ZS7 (see ZD5)		
ZS8	Basutoland	
ZS9	Bechuanaland	
1S	Spratly Is.	
3A	Monaco	
3W8, XV5	Vietnam	
4S7 (VS7)	Ceylon	
4U1	I.T.U. Geneva	
4W1	Yemen	
4X4 (from 14/5/48)	Israel	
5A	Libya	
5B4 (ZC4)	Cyprus	
5H1 (VQ1)	Zanzibar	
5H3 (VQ3)	Tanganyika	
5N2 (ZD2)	Nigeria	
5R8 (FB8 Madagascar)	Malagasy	
5T5, 5U7 (see after FF8)		
5V	Togolese Rep.	
5W1 (ZM6)	Samoa	
5X5 (VQ5)	Uganda	
5Z4 (VQ4)	Kenya	
6N5 (see HL)		
6O1, 6O2 (fm. 1/7/60)	Somalia R.	
6W8 (see after FF8)		
6Y (VP5)	Jamaica	
7G1 (from 1/10/58)	Rp. of Guinea	
7Q7 (ZD6, Nyasaland)	Malawi	
7X2 (FA)	Algeria	
7Z (HZ)	Saudi Arabia	
8F (from 1/5/63)	Indonesia	
8Z4	Saudi Arabia-Iraq N.Z.	
8Z5 (9K3)	Saudi Ar.-Kuwait N.Z.	
9A (MI)	San Marino	
9G1 (from 5/3/57)	Ghana	
9H1 (ZB1)	Malta	
9J (VQ2, N. Rhod.)	Zambia	
9K2	Kuwait	
9L1 (ZD1)	Sierra Leone	
9M2 (prior 16/9/63)	Malaya	
9M2 (from 16/9/63)	W. Malaysia	
†9M4 (VS1)	Singapore	
9M6, 9M8 (from 16/9/63)	East Malaysia	
9N1	Nepal	
9Q5 (pr. OQ5-0)	R. of The Congo	
9S4 (prior 1/4/57)	Saar	
9U5 (from 1/7/60 to 30/6/62)	Ruanda-Urundi	
9U5 (from 1/7/62)	Burundi	
9X5 (from 1/7/62)	Rwanda Rep.	

† From 16/9/63 to 8/8/65 counts as West Malaysia.

Correspondence

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

PANSY'S NOTES

Editor "A.R.," Dear Sir,

Each month I have noticed in "A.R." magazine that the VK5 Divisional notes are allotted quite a lot of news columns—this may be a good thing for the South Australian Division, but to others, like myself, it seems an awful waste of valuable information space. I feel that these notes could be reduced to a more reasonable length and the remaining space be rightly used to bring to the majority of readers items of interest either technical or non-technical.

—Arthur Johnson, VK4PX

[Couldn't agree more.—Ed.]

"GOING S.S.B."

Editor "A.R.," Dear Sir,

I am prompted to write to you on the topic which is foremost in very many Amateurs' minds and which also arouses much sundry correspondence these days—i.e. "Going S.s.b."

Much has been said over the air and much has been written, but from observation I feel that the situation here in Australia seems to have resolved in a division of the Amateurs into four distinct categories:—

(1) The "commercial s.s.b'ers" with their Swans, Galaxies, etc.—very nice too and good luck to them but, of course, their ranks are limited by the financial status of the individual.

(2) The "home-brew s.s.b'ers"—this section comprises mainly our more technically advanced brothers who, in many cases, have available through their employment the use of test equipment, etc., far removed from that which may be found in the average lowly Ham shack. They also, in many cases, have access to a ready supply of components at negligible cost.

(3) The old, old-timer who has got along well enough on a.m. for the past thirty years and is "damned if I'm going to mess around with that new-fangled Duck Talk at my time of life!" His point of view, whilst not progressive, can be well understood and sympathised with. I'm willing to bet that some of our present day "progressives" will be voicing similar sentiments thirty years hence!

(4) A very large proportion of the Amateur fraternity who are active on a.m., see the value of s.s.b. operation and would genuinely like to go s.s.b.—**but**—do not have available test equipment other than the old g.d.o. and multimeter, do not have access to a "pandoras box" of components and are not endowed with any great surplus of Decibels. This group, I feel sure, includes the greater proportion of Australian Amateurs.

At this point you may be making any one of a number of remarks, depending on the category above into which you fall, but you are probably saying "So what!"

So this –I feel that our Amateur organisation, in its role of furthering the interests of Amateurs as a whole and appreciating the great job already done, could tap its resources to provide, through our own magazine, a relatively simplified, fully detailed and illustrated series of articles and circuits on, say, a **complete** single band s.s.b. transmitter followed possibly by a multiband transmitter and then a complete transceiver. These should be accompanied by a **complete** list of components giving details of individual items together with availability and names of **suppliers.**

It is quite well known that very many Amateurs have been awaiting such a project to appear in "Electronics" magazine, so far to no avail, and I do not see why our own W.I.A. members could not produce something after the style of the "Electronics" projects.

Voices may be raised in anguish at this point, but I feel that the situation is such that great assistance could be given to very many members if such a project were undertaken. I well realise that many of the usual Amateur type articles have appeared in the Mag., but very many of them assume that the reader has an equivalent knowledge and available facilities as the writer, whilst others specify components which the author "happened to have in his junk box" and which necessitate a long and arduous search through the sources of supply in Australia often to find that one is unable to duplicate the particular item.

I would like to commend Steve VK1VK, among others, for his recent efforts and offers to assist his fellow Amateurs along the way to s.s.b. and appreciate his remarks regarding d.s.b. but I feel, with the majority, that if we are going to empty our piggybanks we might as well go all the way and eliminate that other sideband as well!

So, gentlemen, can someone come up with the works, along the lines of the "Electronics" projects (see 5-band d.s.b. transmitter in November issue) even though it may take up considerable space in the Magazine (you could always cut Pansy down to a mere two or three pages, thereby giving the poor old chap a bit of a rest!) and help us poor sheep to partake more fully of our hobby—of course we still have to find the money and build the things!

—J. S. Beckingham, VK4JI

[Pub. Comm. would welcome such an article.—Ed.]

COST OF OVERSEAS EQUIPMENT

Editor "A.R.," Dear Sir,

The letters published in the November 1965 issue require further comment because Mr. Gunther of Hobart apparently does not know about preferential Commonwealth import duty rates and therefore comes to an invalent conclusion, and Mr. Cunningham of Melbourne evades the KW200 transceiver issue and only proves that in the case of an Eddystone ECKO receiver he is satisfied with the profit he makes with his discount on the U.K. net prices plus duties.

Contrary to Mr. Whalley's (VK6KK) assumptions, there is no sales tax on Amateur equipment in the U.K. In Britain it is a "purchase" tax, i.e. on retail price not trade price. Secondly, K.W. Electronics only recently is catching up in production with the order backlog, until recently only sold direct to the public and for export, and allows hardly any or very little discount for overseas importers. They have no agents in the U.K. either. So Mr. Cunningham's cost of the transceiver in question was very little below what everybody else had to pay for it. As a matter of fact a year ago the set was extremely hard to get. In that light the sales price as advertised in Australia left a substantial, but not uncommon profit margin, except for the sales tax charge on the retail price which is not quite what the importer pays in most cases.

Many Amateurs have little idea of the actual overhead expenses of the importers. The interest lost on outstanding capital, handling and insurance charges, the 27½ resp. 45 per cent. import duties on overseas net cost, plus sales tax on the total **plus** 20 per cent. theoretical profit margin calculation. They also overlook that certain items are heavier than 22 lbs. when packed and cannot be imported with only a few pounds of postage by parcel post, so become unduly expensive when imported privately by ocean freight. The cream is certainly off the Amateur supply business in Australia with the prevailing competition and considering the colossal import duties and sales tax overheads, the VK Amateurs are getting a very fair deal.

Mr. Whalley (VK6KK) in private correspondence, suggested that freedom from duties for Amateur equipment imported in Australia is long overdue. Nobody will disagree with that, but there is little hope for that—the Dept. of Customs and Excise even flatly refuses to consider by-law applications for Amatetur equipment that is not even made in near equivalents by the local industry.

—A. Bles.

SWL

Sub-Editor: D. GRANTLEY, WIA-L2022
Alexander Ave., Hazelbrook, N.S.W.

1965 has drawn to a close, and as we look back for some it has been a year of achievement and amongst these members I feel I must mention two of our chaps. Firstly, to Peter Drew, you have done a fine job Peter, my personal congratulations to you as you approach the head of the DX ladder, and may 1966 see you up at the 300 mark also. Secondly, I feel that another event worth recalling, even though it occurred last month, was the issue of S.w.l. D.X.C.C. No. 1 to our number one listener, Eric L3042, a fitting reward for years of faithful service.

To those of our number who have graduated to the ranks of licensed Amateurs in 1965 we extend our best wishes and wish you good hunting in your new field of activity.

In closing these few introductory remarks, both Charles and I would like to thank all our friends who have been so loyal to us, and Charles says a very special "thank you" to all who wrote when his wife was in hospital. I am sure also, judging by comments I have received in the mail, that all our chaps are grateful for the continued co-operation which we are receiving from the Publications Committee and look forward to our continued good relations in 1966.

MEET THE LISTENERS

A name which has appeared regularly in "A.R." for many years is L2033, Don Shepherd, of Casino. Of late, Don has restricted his operating to our three main contests, using a 7v. super with a 132 ft. end fed Zepp 24 ft. high, running E/W and connected to the rx through tuned feeders and an a.t.u. An impressive list of contest certificates include a 1st and 2nd in the ZL Memorial, three N.F. days, four VK-ZL, and one R.D., also the silver cup given by the VK2 S.w.l. Group for the R.D. The only award he has in the Elizabethan award, but don't be misled by this as Don is one of our best contest operators. Good luck OM.

VICTORIA

Election of office-bearers took place at the October meeting and the following were installed: President, Harry Roach; Vice-Presidents, Brian Hannan and Robert Halligan; Secretary, Ian Woodman; Treasurer, Tony Armstrong; Publicity, Ross Lazarus, and QSL Officer, Colin Muir.

During November most members have been busy with examinations or re-erecting their antennae which were blown down in recent storms. During the past year the Group had many interesting lectures and outings, the average attendance at the monthly meetings being 30. A sub-committee of seven members are producing a s.w.l. newsletter, the first should be available to all Institute members at the time of this issue. The first meeting for 1966 will be held on 28th January.

BAND CONDITIONS

Examinations have severely hampered interstate reports this month and most letters come from the "older" brigade. From VK2, Mac Hilliard has been on 14 Mc. and comments that of late signals seem to be coming in from all directions at once. He has also heard sigs on 10 mx but at present is restricted to 28.5 to 28.7 Mc. Chas L2001 has also been inactive but was pleased to receive a card from LA5. I understand Mac had a confirmation from YA. At this QTH (L2022) activity has been at a minimum but good openings have been noted on 7 Mc. in the early morning. A newcomer to our page L2019, C. Middleton-Williams of Chester Hill submits a fine list including EL, HL9, HP1, KG6 (Marcus), KJ6, KR6, OD5 and many others.

In VK3 Eric Trebilcock's listings reflect the band conditions in that State, however I will list his countries heard during Nov. on 80 mx: UA, YO, UB5, DU, DL, LZ, SP, JA, OK, UC2, SM, YU, KL7, W, UP2, UA0, in many cases several calls from each country. This band can be really good for c.w. Inward QSLs to Eric: EL2AD, UA1KBB (3.5), UD6BF, UL7CG, UP2BP, VK9AG, XE1NL, YJ8WW, 5W1AZ and KC4USX. Whilst on VK3, Bob Halligan has QSLs to hand from HL9TT, VK9PL, VK9OM, VK9XI, VK9CR, VK9AG and YV5BPJ. Bob is doing well and has a conscientious approach to his QSLing. Greg Earl reports good prevailing conditions which gave him JA, UH8, TI2, EP3, I, VQ8, XE and YN1.

If conditions in VK2 and VK3 are good, then they must be excellent in VK4 where Afton Westcott L2136/4 reports 10 mx improving each week, and 20 being the main DX band at present. Best of Afton's bunch were on 14 Mc. s.s.b.: LU4, 9M8, OZ6, PA0, YA1 and 5J4.

Only other reports this month come from L6023, L6029 and L6030 in W.A. and again it seems that 15 mx is pulling in the DX over in the West. JA, ZE1, ZL, G, KR6 were logged on that band, whilst YS, CX, ZS6, VE, KX6, KC4, PY2, FK8, OK and many others were heard on 20. It was a great pleasure to exchange tapes with these lads early this month and make personal contact.

COMMERCIAL DX

My remarks on this subject in a previous issue brought a prompt reply from Robt. Padula, VK3ZFU, who is the secretary of the Victorian Branch of the N.Z.D.X.R.A. Should

(Continued on Page 17)

F-SERIES S.S.B. EQUIPMENT by Yaesu Musen

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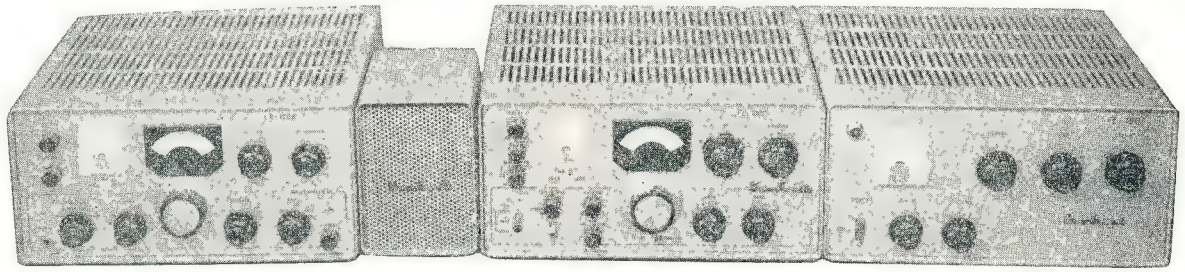

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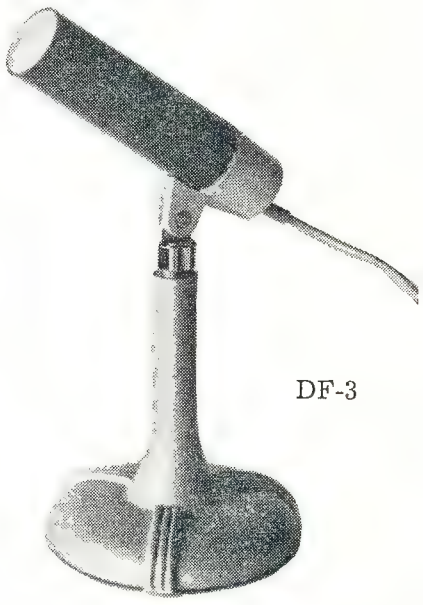

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SIDEBAND

Sub-Editor: PHIL WILLIAMS, VK5NN

S.S.B. TRANSCEIVERS

There have been numerous requests for information on the various types of transceivers now available to the Australian Amateur, so I am taking the liberty of making this the theme for the summer holiday editions of these notes.

In general, it may be said that the transceiver is a single package combined transmitter/receiver using as much apparatus as possible common to both functions. This usually boils down to a common i.f. strip including the crystal or mechanical filter, and common oscillator circuits, both crystal and variable, which are switched to the appropriate parts of the circuits.

My first introduction to transceiving was a unit using the oscillators from the HT32A transmitter, feeding via cathode followers to a mixer unit, thence to a converted "Super-Pro" tuned to 9 Mc. This "lash-up" was used by a U.S. serviceman overseas for phone-patch work during the mid-50s, the object then, being to send the transmission back to the States on the same frequency as was coming back. In this way, transmitter tuning was all that was needed.

About this time, Collins brought out the three-band KWM1 for 10, 15 and 20 mx and since those bands were very co-operative for DX at that point in time, these units were popular. Since the late 50s, however, the five-band KWM2 and 75S/32S transceive combination have taken the lime-light. Anybody with a disused KWM1 for sale is advised to wait for several more years, when its value is expected to rise with sunspot activity.

Another transceiver that appeared at this time was the "Cosmophone," which was definitely a fixed station transceiver because its size, shape and weight were about the same as a Marconi CR100 receiver. It appeared in a 90w. and a full kilowatt version, but the beauty of it was its two v.f.o's, one for transmit and the other for receive, with provision to change at will. Many of the more recent transceivers have "out-rigger" v.f.o's which enable this to be done. It is important to note that this Cosmophone was the forerunner of many of the advanced units available today, but has now become a discontinued line—mainly because of its appearance. When operating cross-band, viz. U.S. phone band to foreign phone band, one had to be on guard against inadvertently transmitting on the wrong v.f.o. The reaction to this was akin to driving wrong way down a "one-way" street. Apart from mentioning that this Cosmophone had a mechanical filter for sideband generation and reception and was a.c. powered, we will say no more than that both it and the KWM1 were expensive.

The next transceiver excursion by a big manufacturer was the Hallicrafters FPM-2000, a beautiful little unit, with lots of transistors and a pair of 6146s in the final, but it just could not be produced and sold under 2,000 dollars so that apart from being used for a few DX-peditions not much has been heard of it. I had the pleasure of operating one of these at W2AVA's establishment in New York City, and can vouch for its performance. It was offered at a bargain price—still more than a new KWM2, so it remained unsold.

Collins KWM2, brought out in 1959, has been in production for six years now, and is still basically the same apart from accessories which appear from time to time. When one considers their re-sale value, this unit is an economical one, but alas, and particularly in Australia, financing a Rolls and a KWM2 fall into the same category—just another illustration that "only the rich can afford to be economical."

After this, it seems that everybody wanted to get into the act and almost as many firms now make transceivers as make washing machines, and designs are about as competitive and full of "must" features.

Swan transceivers were next on the scene with the now famous SW120, using a 5 Mc. filter and a single 6DQ5 output. Some clever people discovered that these could be made into a three-band job with a few coils, switches and the pluck to dive into a new set with drills, cutters and soldering iron. Swan then brought out the 240 version, tri-banded, and Hallicrafters came along with a similar tri-bander the SR-150—in 1962, to be followed a year later with the SR-160 for five-band work.

R. L. Drake, of Ohio, then brought out his first transceiver in the same year (1963). His TR-3, a five-band unit (he previously made receivers) used 9 Mc. filters—yes, two of them, one for upper and another for lower sideband—and has been a successful unit for both home and mobile use.

At about this time World Radio Labs. brought out a tri-band Galaxy transceiver, which although quite a large unit, established them in the market. The newer and smaller Galaxy III. was produced in 1964, followed closely in the same year by the Galaxy V., both of which are still in production and widely used.

The National Co. brought out their NCX-3 in 1963, their first attempt to re-enter the serious, high-class equipment field since the post-war years. The more recent NCX-5 is a five-band version covering 80-10 mx. Both units have been popular, to say the least.

The Heath Co., makers of well known kits, has been successful with single band transceiver kits using crystal filters and printed circuits. Some time ago publicity was given to a larger five-band transceiver, but this has not materialised, although the separate transmitter/receiver units of the same construction are available and can be connected for transceiving. The smaller kits, the HW-12, HW-22 and HW-32 may be tri-banded by addition of more coils and components for an additional 50 dollars, and this has been stated to be the cheapest way of getting on the 20, 40 and 80 mx bands. The kits for conversion are by Dynalab, not Heath-kit, just by the way.

Swan has recently kept to the fore with the five-band Swan-350 which has an in-built transistor v.f.o. and the Swan-400 with alternative external v.f.o's. The small mobile v.f.o. covers popular s.s.b. band sections, and the large v.f.o. gives complete band coverage.

"Side-band Engineers" in California have marketed a transistorised four-band unit, the SB-33 for several years and a later version, the SB-34 is basically the same but with additional features, such as slower tuning rate. The transmitter output is, of course, obtained from valves, two t.v. time-base types.

Two later additions to the parade are "Eico" selling their model 753 in either kit or wired form—and there are Australian agents, so I see in "A.R.," and "Transcom" with their SBT-3. The latter is, again, a transistorised unit and although I do not have details of the circuits, it appears to be comparable with the SB-34 except that external power supplies are required for the SBT-3.

(Continued next month)

☆

SWL

(Continued from Page 15)

any reader be at all interested in commercial DX, Robt. would like to hear from you at 404 Mont Albert Rd., Surrey Hills, E.10, Vic.

Re the programme "DX Party Line" from HCJB, advice is to hand from Bill Dalrymple, 20 Goulburn St., Sydney, their VK rep., to the effect that this programme is heard on first and third Wednesdays of the month at 7.30 p.m. our time on 6.05 or 9.745 Mc.

DX NEWS

Very little this month, PX1UX says all QSLs via R.E.F. Don't send a "bare" report to ZB2AO or it will finish up in the w.p.b. 5U7AU, heard recently, asks for all QSLs to go to W8HMI, the op. of 5U7AU (6O1AU) has now returned to the States. Tnx "Monitor".

DX LADDER

There are several alterations since our last publication, including the deletion of names which have been missing for three months.

	Countries Conf.	Countries Hrd.	Zones Conf.	W States
E. Trebilcock	290	295	40	50
P. Drew	177	260	37	40
D. Grantley	128	290	39	35
W. Smith	108	190	32	7
A. Westcott	106	159	34	11
R. Kearney	100	161	33	8
G. Earl	98	165	33	16
M. Hilliard	93	241	33	14
C. Aberneathy	66	105	33	14
N. Harrison	63	183	32	38
B. Prosser	60	180	17	8
A. Raftery	49	175	24	11
D. Shephard	31	98	—	—
R. Halligan	21	136	11	1

To qualify for a position on the ladder it is necessary to have ten confirmations.

Well chaps, that's it from here, 73 to you all and good listening in 1966—L2022.

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DX

Sub-Editor: ALAN SHAWSMITH, VK4SS
35 Whynot St., West End, Brisbane, Qld.

Conditions continue to improve slowly, 21 Mc. particularly has been quite good and open from early morning until after dark. However, VK activity seems almost non existent on this band up to now. So wind another coil chaps! Make the effort, it is worth it.

NOTES AND NEWS

Agalea: Harvey VQ8BFA managed a three-day stint early in Nov. Next burst from the Island will be mid December. QSL G8KS.

9M8KS/9M6: Active from Sabah, 14050, 1200z.

Easter Is.: Reported on 20 c.w. 0300z. Look around 14065. Call is CE0AC.

Dahomey Rep.: TY3ATB opens up on 21400 s.s.b. about 1300z but will QRT under a pile up.

Mauritius: Raul VQ8AI on 14070 at 2000z.

Spanish Morocco: EA9AZ, 21360 with daily sked at 1600z with KP4CL.

Turkmen: UH8DP is a YL. 14100 at 1500z.

Mauritania: Alban 5T5AD, 21150, 1600z.

Monaco: Jean 3A2BF, 14250, 1400z. QTH OK in book.

Congo Rep.: TN8AF, 21060, 1900z.

Ceylon: 4S7IW, 14220, 1200z. Also several on A1 mode 20 mx both at 0100 and 1200z approx.

Swaziland: Archie ZD5R and Des ZD5M both QRV. QSL to VE4OX for the former. Modes s.s.b. 14110 and c.w., also 21 Mc.

Rep. of Guinea: Josef 7G1A, 21030, 1800z.

Malawi: 7Q7PBD and 7Q7PS both QRV on 14 Mc., A1 mode. Try 1200z. Also 7Q7BN said to be operating 21 Mc. s.s.b. 1730z. QSL the latter via WA0AGY.

Ifni and Rio de Oro: Mike EA3QT still says he is going to operate from these places during Dec. and Jan. No other info.

Bonaire: Ginny PJ5BD is rumoured still active on 14 Mc. s.s.b.

Antigua: VP2AX 14290 1900z, also VP2AC 14240 1100z.

Grand Turk Is.: VP5AR reported as still active and is expected to continue for some time, 14 s.s.b. and probably A1 mode. Try 0400z or 2030z l.p.

ZD8ML is listed as active on all bands and modes. Not heard yet at this QTH.

Togo: 5V2SCM 14 s.s.b. and c.w. Will operate for one year. QSL to F. Payet, P.O. Box 123, Lome, Togo.

Jan Mayen: LA5AJ/P 14040 1800z, also s.s.b. at times.

FB8WW: Now on s.s.b. So reports from Eu say. 14 Mc. around 0700z might find him.

CR5SP: 21390, 2100z. Says he prefers to be called in Spanish. Erudite VKs please note.

GC8MT: On now at time of writing, but not known for how long. 14285, 1400/1500z.

Portuguese Timor: CR8AE and CR8AF both QRV, the former s.s.b. and the latter A1 mode. Both 14 Mc. and CR8AE's QSL goes to Dilli, Timor.

Tahiti: FO8AQ 14 s.s.b. 0645z. C/o. Panaauia, Tahiti. Also FO8BI active on all bands, c.w.

Pago Pago: KS6BH 14 s.s.b. 0500z. QSL to Box 8. Also one or two others operating.

Pictairn: Tom VR6TC regularly on 21065 2200z. Sked first with W5OLG to arrange Tom to call. Always a mass of Ws on the freq.

Br. Guiana soon to be independent and renamed Guyana. Not known if prefix will be changed.

Singapore: Since break with Malaysia, is regarded as new country.

Govt. of Turks and Caicos transferred now to Govt. of Bahamas. This may mean another possible deletion in D.X.C.C.

ACTIVITIES

Chas VK4UC has found time between study and school-teaching to snare a few good ones. All 20 c.w.: 7Q7PS 1200, FR7ZI/M 1300, FL8RA 1430 (QSL W2LJX), CR8AF 0900, VQ8AI and AW 1400, 7Z3AB (Box 2486, Dharhan), EP2RV 1100 (QSL G5RV), DU1RF (Box 4083, Manilla), PE2EVO (QSL PA0EVO), 1S9WNV, W9WNV/T19C, W9WNV/ZM7, etc.

Dud VK4MY soaking up retirement on the Gold Coast and working DX. 5Z4JD 2050, HL9KF 1310, OA4JR 0315, ZS5UR 0630, 4X4VL 1325, IT1AUT 0630, CX2AJ 1000, VS9OC 1130, FB8YY 1130, W9WNV/ZM7, VS9OSC (Oman, 1100z), 9M2YY 1030z, KR8CV 0700, CX1RY 1000, VQ8AI 1345 and others.

Ken VK3TL logs the following choice ones on 14 Mc.: DU9FC, HV1CN, LA5CI/P (Jan Mayen), OD5EG, OY2B, OH0VF, PE2EVO, PX-1CB, VS9MP, 5J4RCA, 5W1AZ, 9M6DH and more. Best QSLs rcd. VP1AB, HC8FN, PJ3CD, HP1BR, DU9FC, YS1AG, VP5AR (Grand Turk Is.) and 9L1SL.

All times given are G.M.T.

QSL MANAGERS

VR4CU—ZL2LB
VR5AC—ZL3DX
VS9ALD/4W1—W9JJF
XZ2TZ—W4ECI
YA1AW—K5YYP
AP5B/YA—G3HG
YS1O—W9UZC
ZD5M—W2CTN
ZD5R—VE4OX
3V8CA—W8UTQ
6N5X—W6SY
9Q5GE—W8WBT
VK9JO—VK6RU
VK9DR—VK6RU
VK0FZ—W5WW
VP1WS—VP3AA
VP6PX—W2CTN
VP6LJ—W2CTN
VP7CS W2CTN
VQ5IB—W2CTN
VQ9HD—G3PEK
VQ4RF—W4MCM

SUMMARY

DX-wise the winds of change are blowing across Amateur Radio too. We are now in the era of island activity. A glance at the notes and news will show this. Expeditions are being planned to islands large and small. To mid ocean fragmentry rocks and awash sand banks. DXing now has an exotic face. A new look if you like. Trail blazers were Danny Weil VP2VB and Sir Gus W4BPD, who is still humping gear from one outlandish place to another. Many others are helping to bring the islands of the world to our notice. Our own Bill Hempel, VK3AHO, did his share in Oceania. Feverish contemporaries are Don W9WNV and Chuck K7LMU, both flat out operating from various islands, remote and rare. Their proposed activity from Heard Is. in the near future will be a stout effort if it can be accomplished. Making a landing will be no piece of cake on this wind-torn spot down below the roaring forties.

All this may not be the ultimate for which Amateur Radio exists, but it is providing interest and activity.

A very special thanks to those who have helped provide the "meat" for the column these past months: LIDXA, Fla. DX'er, Mick G3HDA (R.S.G.B.), John OH2YV, and locally VK2QL, VK3TL, VK4MY, VK4UC, S.w.l. C. Thorpe L4018, and others.

Good hunting in 1966. 73, Al VK4SS.

W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK5MS	24	320	VK2JZ	61	244
VK5AB	45	312	VK2ADE	65	231
VK6RU	2	310	VK4HR	12	223
VK6MK	43	307	VK2AAK	58	214
VK3AHO	51	307	VK6KW	4	211
VK4FJ	21	283	VK3WL	14	211

New Members:
VK3ACD 67 145

Amendment:

VK2APK	64	182	VK3TG	48	142
VK2AGH	55	118			

C.W.

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK3KB	10	333	VK2AGH	71	282
VK2QL	5	308	VK2EO	2	276
VK3CX	26	306	VK6RU	18	263
VK4FJ	29	300	VK3AHQ	79	260
VK2ADE	81	298	VK3ARX	66	253
VK3NC	19	286	VK3XB	75	247

OPEN

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK2ADE	28	322	VK2ACX	6	300
VK6RU	8	316	VK3NC	77	287
VK2AGH	83	314	VK3JA	43	271
VK3AHO	76	310	VK4HR	7	264
VK6MK	74	309	VK2VN	18	251
VK4FJ	32	308	VK2APK	82	243

Amendment:
VK3ACD 94 151

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VHF

Sub-Editor: LEN POYNTER, VK3ZGP
14 Esther Court, Fawkner, N.15, Vic.

Writing this so early in the season seems to be a good time to stick my neck out and make a few predictions. By the time it is in print we will be able to observe the results and comment in detail.

With 52 megs open so early with good openings from early November, it would appear that we might enjoy an excellent season. Early openings across to VK6 and ZL from VK5 makes it look like the 63-64 season when these areas were worked in later November. This produced quite an outstanding season when the W.A.S. on 6 totals went up in great strides. The usual traffic between VK4 to VKs 1, 2, 3, 5, 7 are in earnest and nothing further need be said. Unless Channel 0 reduces test pattern hours many in VK4 and VK3 will find it hard to work ZLs and perhaps VK6, acquiring front-end overloads, etc.

With the early morning openings predominating from VK3, it could mean a reversal of form from last season when the openings (or the best openings) were in the late afternoon and early evening which put the majority of Melbourne stations off the air.

Whilst on the t.v.i. subject, some Melbourne Amateurs are experimenting with the use of f.m. to overcome these problems and from early reports appear to be having a good deal of success. The use of f.m. has never been very popular in the past because of the receiver problem. However, this should no longer be the case. Use of surplus commercial two-way equipment has resparked interest and use of modified t.v. sound channels could be an inexpensive answer to the receiver problem. The result is a low noise receiver capable of quite excellent results on f.m. signals which should go a long way to overcome the receiver problems.

The loss of the VK5 beacon will impose somewhat a strain on our VK5 DXers, as they will have to rely on their intuition to forecast conditions. The VK6 beacon was running from 6ZAA's QTH and if all goes well will be back at the old QTH for a tryout.

A request to users of the 53.032 Mc. frequency. If you must work stations off the frequency, try to listen often and keep the overs short to allow others to use the channel. Better still, if you work off the frequency QSY to another spot and don't tie up the hottest spot on the band. Many use fixed receivers and one station working to another off the net makes it extremely difficult for others. Some recent efforts completely gummed up the frequency for long periods and they never once listened on the frequency as many were calling but none were heard.

There will be no notes in the February issue, so hope you all have a good season. Bags of DX. Best of good wishes for '66 and please—send in those logs for the Ross Hull Contest. Spend an extra evening off the air doing your log. 73, 3ZGP.

NEW SOUTH WALES

An opening to ZL occurred during the week-end of 27th and 28th Nov. During Saturday afternoon, VK2ZVL was working ZL-3RK on 6 mx. VK2ZVL went to 2 mx s.s.b. and they worked cross-band. On Sunday at 1650 (E.S.T.) VK2ZEK heard and worked ZL-3JE on 2 mx. Signals peaked to 5 and 8 both ways. Several other stations heard the ZL signals but no other reports of working have been received.

Don't forget the New Year VK2 Field Day, 5 p.m. Saturday until 9 a.m. Monday. Activity appears likely from all mainland States and New Zealand. About 30 field locations and about the same number of home stations will be taking part.

During November 6 mx started to open and several all State openings have occurred.

There has been steady activity in VK2 according to all reports. W.I.C.E.N. activity is spreading and several country stations are now using 146 Mc. f.m.

The V.h.f. Group, which transmits a broadcast at 7.30 p.m. on Sunday under the Group call sign VK2BWI, has seen a change in the style of material presented. V.h.f. equipment is being installed at Wireless Institute Centre and will be used in the near future. Some broadcasts have already been done using portable equipment. Besides installing transmission gear, a room is being set up with test equipment to help the v.h.f. operator.

The January meeting will be held on 6th and is set down as an open night. The Group will be setting up a station again in the National Field Day in February. Regular and well attended fox hunts on both 6 and 2 mx were held last year.

All the best for the New Year. 73, Tim 2ZTM.

SOUTH AUSTRALIA

At last organised pandemonium reigns supreme within the confines of 52.0 and 52.2 megs. Although not unusual for this time of the year, it would appear that in the ensuring months intense sporadic E DX will be available to those who avail themselves and switch on their gear, which from observations appears to be most difficult for some operators. Nevertheless, activity in VK5 will uphold the tradition. Up till the 28th Nov., stations in VK1, VK2, VK3 (backscatter), VK4, VK6 and VK7 have been available on innumerable occasions. No activity from VK8 and VK9 has been reported as yet.

An excellent opening was experienced on 27th Nov. to ZL1, 2 and 3. Signals up to 5 and 9 plus were available in VK5 for up to two hours.

It has been interesting to note the increased number of stations utilising the practical advantages of single sideband. It is not unusual to copy a s.s.b. signal 15 to 20 minutes prior to and after the completion of a customary a.m. opening. However, to fully make advantage of this apparent increased time of band openings more sideband signals are required to expedite the full advantages of this mode. No doubt in DX seasons to come the advantages of s.s.b. will be enjoyed by the majority of v.h.f. operators. As advertised on the modulated ink bottle, "Get with the Strength, Bank S.S.B."

Anticipating the imminent launch of Oscar IV., many VK5 Amateurs are organising themselves into groups and pooling their resources to make an honest attempt into obtaining the most from the project, providing of course that the package is placed in orbit undamaged and the translator functions more successfully than that of Oscar III.

On behalf of all the v.h.f. enthusiasts in VK5, I wish to extend the season's greetings to fellow v.h.f'ers in VK and may the Sporadic E glisten down upon us. 73, Colin 5ZHJ.

WESTERN AUSTRALIA

November in VK6 brought with it a substantial increase in v.h.f. activity, as the DX season got under way. On Nov. 14, Andy 6ZCN bagged the first DX for the season, with Max 6ZFM in Bridgetown close behind. Since then reports of DX heard and worked have been coming thick and fast, including one of ZL television. This augurs well for the months to come.

VK6VF is now running beacons on six, two and 432, so all interested VK5 types can cease complaining about our beacons and start work on your 432 beacon instead. The next move in the better beacons campaign in VK6 is to get the aerials off 6AW's back fence and into the air; the more technical types amongst us feel that an increase in coverage may result from so doing.

The November meeting of the V.h.f. Group was well attended and in contrast to the usual, was quite a subdued affair with very little business that the table-thumpers could get their teeth into. Even the subject of the Christmas meeting generated very little emotion. A lecture by Trevor 6ZDZ on Radio Astronomy in Australia aroused much interest amongst those present.

The fox hunt was held in Bunbury as part of a Hamfest on the week-end of 20th and 21st and after extensive motoring round Bunbury, Graham 6ZDB won the event. Supper was held in Danny Robertson's backyard, and next morning Andy 6ZCN and Graham 6ZDB organised and ran an f.m. caper in the form of a car trial with radio. Aub 6XY from Wickepin beat the field and John 6ZAG missed a turn somewhere and kept on going east for about ten miles too far. But the scenery proved so nice when he got there that he decided to stay and take photographs.

Max 6ZFM distinguished himself later on by splitting his bathers while surfing, and all in all the week-end was a roaring success. Our thanks to the Bunbury types who arranged it all.

Activity on 6 mx a.m. is on the increase, with the DX, and several people have been talking sideband, some actually building it, too, but the bulk of traffic is still on the f.m. net on 52.656. Base stations and mobiles continue to proliferate and activity is even noticed on Chan. A (52.525). There is a fairly extensive a.m. net in operation also, mainly amongst the staff of the t.v. stations, but details of frequency and activity are not to hand.

On 2 mx, activity is still confined mainly to crossband and contacts prearranged elsewhere, but Andy 6ZCN has his 40 element "You Beaut Special" almost finished, and don't forget that when six is open, Rollo 6BO is often up on two looking east (VK5 please note).

There is a DX-pedition planned to Esperance by 6ZAY and 6ZCN on 6 and 2 mx over the Christmas to New Year period, and others are dispersing round and about, Tony 6ZDT to Meekatharra and Graham 6ZDO to Forrest.

Nothing much has happened on 432 for some time, but it is hoped that the coming of the beacon will change all that and cause some building for that band.

While I remember, Glen 6ZFH will shortly be on from Dalwallinu and Peter 6ZRK is off to Onslow in the New Year, so some northern activity may be stirred up this year.

The V.h.f. Group of VK6 extends the compliments of the season to v.h.f. operators everywhere. To all of you east of the rabbit-proof fence, we say 73 and please point the beam west sometimes. Barry 6ZCF.

☆

YOUTH RADIO SCHEME

Some Youth Radio Clubs are fortunate enough to have their own Amateur stations and members are able to gain experience in Amateur Radio communications under the supervision of licensed operators. To cater for club members who show special interest and aptitude for voice communication, the Radio Telephony Operators' Certificates are available in three grades.

To eliminate the possibility of turning club members into mere "on-the-air chatterers," the gaining of the Radio Telephony awards is conditional on progress in the technical aspects of Y.R.S. training. The Grade 3 R/T award is available only to members who already hold the Elementary Radio Certificate and, similarly, the higher R/T awards assume further progress in the basic series courses. It is expected, too, that candidates for these awards will have received systematic instruction in the handling of station equipment and in the operating aspects specified in "Practical Tests, para. iii.," before being allowed to participate in "on-the-air" activities.

It must be kept in mind that candidates for these awards are, in effect, "public relations" representatives of the Youth Radio Scheme. Consequently, club leaders must ensure that only a good "image" of Y.R.S. is permitted. Candidates should be given prior instruction in suitable subject matter for QSOs and should be encouraged to ensure that other Amateurs are made aware of the Y.R.S. activities involved in the gaining of these awards. It is hoped that, as a result of this supervised operating experience, Y.R.S. members who finally attain Amateur operator status will introduce a new era of snappy, efficient operating, free of some of the unwarranted mannerisms and idiosyncrasies which beset the Amateur bands at present.

The Log Books, which Candidates must submit, must be more than a bald record of the thirty contacts with other stations. These Log Books must be attractively presented and should contain a considerable amount of Amateur Radio "lore", such as Amateur prefixes, reporting systems, pictures of Amateur stations (from such notable journals as "Amateur Radio," "QST," "CQ," etc.), QSL cards, and similar relevant material. In short, they should be "dressed up" to exhibition standard. Club leaders should insist that "only the best will do."

There must be many Amateurs who have sons and daughters with slight glimmerings of interest in Amateur Radio. The Y.R.S. Certificate Scheme provides a means whereby such interests may be fostered and the purpose of these insertions in "A.R." by the courtesy of the Editorial Committee is to ensure that ALL VK Amateurs are aware of what Y.R.S. has to offer.

—R. Black, VK2YA.

☆

SOCIETY NEWS

The official publication of the Korean Amateur Radio League, "K.A.R.L. News," has just been received and although it has not yet been translated, appears to contain quite a deal of information, both technical and of local interest. The s.w.l. news section contains quite a good reproduction of the QSL card of WIA-L2287. The reproduction of photographs, despite the rather poor quality of the paper, is very good and illustrates what can be done by a relatively new Society with little finance. Good luck to "K.A.R.L. News."

FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL QSL BUREAU

S.R.A.L. Finland, new address as from 1st January, 1966 (including QSL cards): S.R.A.L., P.O. Box 10306, Helsinki 10, Finland.

Cards for PA, PI, PJ and PZ stations can be sent via the PA QSL Bureau, VRZA, Post Box 190, Groningen, Holland.

Copies of Regulations (in English) governing Amateur Radio in Finland may be had on application to this Bureau.

The Diploma "Mocambique" will be awarded to every Radio Amateur contacting the CR7 stations as follows:—

(1) First, second and third class Diplomas will be awarded to the Amateurs having, respectively, nine, seven and six Mozambican districts with a minimum of ten QSOs with different stations.

(2) Only QSOs made after 7th October, 1965, will be considered.

(3) QSOs to be made on any authorised band (phone, c.w. or mixed), the minimum acceptable reports being RST 338 and RS 33.

(4) This Diploma will be awarded separately for c.w., phone or mixed. Each CR7 station can be worked several times, provided it is in different bands or type of transmission.

(5) Mozambican districts and respective abbreviations are: Cabo Delgado CD, Gaza GZ, Inhambane IB, Manica e Sofala MS, Mocambique MQ, Niassa NS, Tete TT, Zambezia ZB. All CR7s will transmit the name of the district following the name of the township where they have the QTH, or just the district's name. In telegraphy, they will only use the abbreviation.

(6) This Diploma will be awarded to S.w.l. as well, on the same conditions provided they control a minimum of 25 CR7 QSOs.

(7) Applications must be sent to L.R.E.M., C.P. No. 812, Lourenco Marques, Mocambique, together with ten I.R.C's and a list showing the name and address of applicant, his call letters and the contacted CR7, band, date GMT and the received and given reports, as well as the type of transmission.

There is no need to send the QSLs along.

MP4BEK is now living in Melbourne. Name and current QTH not stated, but may be had from BERS195.

—Ray Jones, VK3RJ, Manager.

— . . . —

NEW SOUTH WALES

Well, another year is with us, and to start activity in the VK2 Division there will be two Conventions over the Australia Day week-end. The Division will be holding their annual event. On Friday night, the meeting at W.I.C. will feature a display of every mode and type of equipment being used in this Division. On Sunday the field events will be held at the transmitting station VK2WI—Dural.

On the same week-end a Convention will be held in Area 2. It is now being held at Tamworth not Armidale, because of accommodation problems. On Saturday afternoon there will be a tour of NEN Ch. 9 studios, a dinner at night and a field day on Sunday. Further details may be had from the Zone 2 Officer, Max VK2BMK at Scone.

In February there will be the field day at Gosford and possibly one in the Hunter Branch.

At the Nov. meeting those who attended heard an excellent lecture by 2AOU on building an s.s.b. tx. A motion was put to the meeting that the fees of the VK2 Division be increased. It was adopted and as from 1st March 1966 the fees will be $5 for full members and $4.50 for associates.

The Canberra Radio Society met on Nov. 17 and elected office-bearers for 65/66: Pres., Ken 1KM; Vice-Pres., Les 1PI; Sec., John 1QL; Treas., Bert Forsyth. Don't forget the Canberra Convention at Easter 1966.

SILENT KEY

It is with deep regret that we record the passing of:

VK5IT—Ivor Thomas.

W.I.C.E.N.

The following are the v.h.f. frequencies to be used in VK2 for W.I.C.E.N. Prime mobile frequency, 146.00 Mc. f.m. On 6 metres the f.m. channels are (a) 53.950 and (b) 53.920, and a.m. (1) 53.786, (2) 53.826 and (3) 53.866. These are chosen in relation to local t.v. channels. All W.I.C.E.N. and frequency inquiries should be directed to the W.I.C.E.N. Secretary, Peter Campbell, 2AXJ, 3 Earle Ave., Ashfield.

A reminder that supplies of both printings of the VK2 produced publication known as the "Amateur Guide" are available from this Division. It is worth a total of 16/- for both (or 6/- to the second sub edition). Address all enquiries to "Handbook," Wireless Institute Centre, Crow's Nest.

All the best for the New Year and 73 from the VK2 Division.—Tim 2ZTM.

VK2 DIVISIONAL FAMILY PICNIC

In spite of the very unfavourable weather and opposition from a DX Contest, the Divisional Family Picnic at Parramatta Park on Sunday, 28th Nov., was a great success. Just on 60 people of all ages attended and took part in a programme of events not usually seen at gatherings of the Ham fraternity.

A long list of events kept everyone occupied and practically every person, in all age groups, showed the picnic spirit by entering the events willingly and appeared to thoroughly enjoy themselves.

The event that raised the most laughs was the wheel-barrow "mobile". This was a pairs event, consisting of a pusher and a passenger, the latter wearing headphones and carrying a dummy sniffer. Rounding the half-way mark, they changed over, and so back to the finishing line. Originally this event was considered suitable for the younger men only, but everyone was loudly encouraged by the spectators to "have a go". As capsizes were frequent, the sight of some portly gentleman flat on his back with his feet in the air kept the onlookers in good humour. Incidentally, the wheel of the "vehicle" at one stage was the shape of an egg, through a combination of our Federal Councillor's weight and a bump in the ground.

A billy-cart derby for the older boys was run on similar lines. A toddlers' race was held so they could take part in the programme, but all children under the age of seven received a gift.

Many other events were held during the day. Before dispersing, there was some discussion about another get-together and it was decided that we meet again at the same spot for a barbecue lunch on Sunday, March 6 next.

HUNTER BRANCH

Even before Christmas the long bearded operator from OX land had visited some of the Branch members and brought them gifts of wonder and delight. Stuart 2AYF was one who hung up his stocking early and found in it one morning a Codar AT5 tx. This is a wonderful little device and only a handful but it goes on 80 as well as 160 mx and has all the usual features. It looks just the job for the car, so we may expect some more 160 mobile activity soon. Otto 2SI was also one of the fortunate ones and his gift happened to be a kit for a Communication 10. The only trouble was that the front-end had some strange resistors in it and appeared to be non-functional until some translation from the original Italian was made when all became clear.

Even the Hon. Member for Gore Hill and William Street, David 2BSC, was not forgotten and his very large stocking was filled to capacity with an announcer's desk ex the old firm, complete with a programme line to the House of Representatives, where, by the way, they will be asking the questions when the loss is discovered. So at least he'll know when he's for the big jump. I, foolish lad that I am, dreamed that some kind person presented me with a big bag of 807s, but, alas when I awoke, it happened that I had my head in the pillow case.

Fred 2ZFO and Henry 2ZGK, who recently received their call signs, are working to get on the air on 2 mx and Henry already has some f.m. gear, "almost there" as he told me. Fred has erected the feeder for the aerial, anyway, so he's made a start. If you hear some strange clicking noises on the slow morse frequency in the weeks following this report you may be sure that it is your receiver which is playing tricks and not the excellent tx being operated by the YL of the Lakeside, Susan 2BSB. It is said that she now only awaits Kevin 2ANY to send a crystal when the strange noises will disappear only to be heard again, but this time on the right freq. For the information of all interstate listeners who are wont to comment about such things, this is the very same tx which one night was three cycles high.

Some of our members are noted for their low quality and low height aerials and it would be most remiss of me to leave them unmentioned here. Les 2RJ was threatened by the local council for erecting trip wires within the municipal boundary, while Paddy 2AXU is in trouble with the labour and industry men for not displaying the notification "licensed dealer in old wares" correctly over the shack. He claimed that it was because he hadn't learned to spell at school. What a difference one letter can make!

Those two overseas gentlemen, Ron 2ASJ and Gentleman Jack from Stockton, have both had bouts of illness recently but from last reports they are improving and have promised to get well again for the new year. As a reward, Mac 2ZMO has promised a new 2 mx tx for good results. The reason he's not offered it before is because he spends the time at night with one eye on the meteorites. It paid off recently though when he was able to really get amongst them and work all and sundry on 6 mx.

By this time Peter 2AIY, one of the Cessnock crew, is on his way to G-land where he intends making investigations into all manner of interesting activities, not the least of which will be the wonders of Amateur operating abroad. His workbench companion, Sherwood 2AJF, is contemplating following him when he has mastered some of the foreign languages used in those distant climes. He is progressing with German though. So far he has learned "I am single" and "What is your telephone number?" So he should have no trouble with the rest of the conversation. Even Chris 2PZ is brushing up on the foreign tongues and knows everything on the front of that exotic receiver which adorns the shack. He has one problem though. Can someone help with the disposal of several dozen large honey jars?

The Australia Day week-end looks as if it will be a very interesting time for local operators who have the choice of two field days—at Tamworth and Dural—in which to partake. Whichever way you travel, you are assured of a good time as plenty of activity is planned. There is even talk of a "mystery voices" competition at the Northern rally—it is to be hoped that this includes the few fractions of a second before the tx is modulated. Then those who come on with a "clunk" will easily be recognised.

Don't make the mistake of attending the January meeting of the Branch as there will not be one, but Frank 2AFO has arranged that another of the Mullard staff members will be lecturing at the next meeting which will be on February 4. Full details of this and all Hunter Branch meetings will be given in the weekly news broadcasts from 2AWX. If you are short of new year resolutions, how about including the I.T.U. Fund. It deserves your support. Well, that's enough for one year. See you when the dollars are about. 73, 2AKX.

VK2 DIVISION, W.I.A.

Australia Day Week-End:

Sydney—Divisional Convention: Meeting Friday, VK2WI Sunday.

Tamworth—Area 2 Convention: Dinner Saturday, Field Day Sunday.

February:

Gosford and Hunter Branch. Refer to Divisional Bulletin for details.

March:

Barbecue first Sunday in March, at Parramatta Park.

CENTRAL COAST

The last meeting of the Central Coast Section was on 19th Nov. The evening was taken up with a lot of general discussion and some important decisions were made. It was unanimously decided that the Central Coast Section should become a Branch, which was the result of much thought and investigation over the last few months. Members appreciate the value of W.I.A. leadership and are proud to contribute to the future of the organisation.

Lindsay 2ON has now returned from overseas and was elected Vice-President to fill a vacancy caused by a resignation. We are happy to know that his full time-table will now allow him to take up the interests of the radio club again.

Our best wishes and 73 to Frank 2AFJ, who has been laid up with a couple of broken ribs. We certainly hope he is all better by the time this gets printed. Les 2AKL and his family have been in an accident and have not yet completely recovered. It's much safer to stay in the shack these days.

The date for the Field Day at Gosford has been set for Sunday, Feb. 27, with the location the Race Course as in previous years. At the moment a definite plan for the day has not been arranged, but there will be the usual scramble, hunts, lunch, sight-seeing trips, etc.

We always have a group of interstate visitors and very often from overseas as well. I hope this message reaches a few readers who may be planning a trip in this direction and will make a mental note of the date—Sunday, 27th February, 1966.

I trust everyone has enjoyed a happy holiday season with plenty of DX. My best wishes for a happy new year on behalf of the Central Coast members. 73, Mona 2AXS.

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VICTORIA

EASTERN ZONE

It has been many moons since the Eastern Zone notes graced the pages of "A.R.," so from now on we hope to make amends. I doubt that our volume of notes will reach those presented by PanSy, but we'll do our best. After this introduction, we'll get on with the business of letting you know what has been going on in the Eastern Zone.

The 19th Eastern Zone Convention was held at Traralgon in the Masonic Hall on Saturday, 20th Nov. Upon registration, each attending Amateur received a handout from the A.W.V. Co. consisting of valve, transistor and other helpful data handbooks. These are valued at over £2, so even for these the Convention was worth while. A working display of s.s.b. equipment by Fred Bail attracted much interest amongst the attending Amateurs. Fred 3YS even let me have a go at tuning up the tx and I was agreeably surprised at the ease of tune up—no high tune up currents, which always seem to be bad for the nerves and for the final p.a. tubes—plus other pleasing features.

Thirty-nine Amateurs and S.w.l's, including their wives and families, attended the dinner on Saturday evening. After the meal us men were left to get down to the business of the annual general meeting of the Zone. The highlight of the meeting was the presentation of the Kinnear Trophy to the Zone by John 3OR. During the meeting considerable discussion took place on W.I.C.E.N., led by the organisers of W.I.C.E.N. It is hoped that the Zone will be taking part as a multi-operator station in the National Field Day. The main problem now is where and by what devious means a 240v. alternator can be acquired. During next May it is expected that an activties day will be held within the Zone. The Zone hook-up is being revived and is on or about 3650 kc. and will be conducted by Merv. 3LL on a Friday night at 2000 hours. Dig out those crystals chaps and let's hear those S meter pinning signals.

As is usual at such meetings, much reluctance was shown by members to accept nomination for the vacant offices, but with a little arm twisting the following were duly elected to office: Pres., Reg 3AWV; Vice-Pres., Graham 3TH; Sec./Treas., Stan 3ZAB; Zone Organiser, Graham 3QZ; Notes Correspondent, 3UG, and Emergency Liaison Officer, Graham 3QZ.

On Sunday all attending the Convention were taken on a trip to Bulga Park and then to Channel 4 and 10 tx'ing stations on Mt. Tassie. From Mt. Tassie contacts were made on both 2 mx f.m. net and 6 mx a.m. net. Mobile operation on 6 and 2 was the order of the day whilst on tour.

Luncheon for all was provided at the Callignee Hall. During the afternoon much ear-bashing took place, with members showing how their mobile rigs did or did not operate. All mobiles seemed to give quite creditable performance. David Tanner, now in VK4, flew down from Mt. Isa and certainly came the furthest to the Convention. George 3ZCG must take the award for the Amateur with the most overloaded vehicle as far as radio gear was concerned. Just one query George. Does the Mini run on petrol or batteries?

The St. Anne's Youth Radio Club in Sale has now gone into recess for the rest of this year. Due to the trouble with the matricula-English exam., the proposed final operating day had to be cancelled. Next year it is hoped that you will look out for the call sign of the club—3ACO. St. Anne's have a 25w. tx on the 80 and 40 mx bands. The club has been tx'ing on alternate Saturday mornings between 1000 and 1100 hours.

The 6 mx a.m. net is going quite well in the general area around Sale. Results are fairly consistent and the way transceivers are being obtained everyone on the net in this area will have at least one base station and one mobile. No VK4s have been worked as yet this season on the net, but on 20th Nov. 4ZAV was heard at good strength.

Well that is the lot for this month. If anyone in the Zone has news I would certainly be pleased to receive it for the notes. Thank you for your notes Stan. 73, Rodney 3UG.

WESTERN ZONE

Merv. 3AFO transferred from Horsham to Wodonga. The Zone wishes Merv. good luck, health and happiness in his new QTH.

Neil 3AQD's quad is still in the constructional stage and looks very impressive.

The Western Zone is the locale of the 1966 State Convention to be held in Ararat on the week-end of April 23 and 24 (Sat. and Sun.). An interesting and educational week-end is assured with 3AQD and 3GN handling local arrangements, in conjunction with the committee of the Western Zone. This will be a highlight of the activities of this Zone in the coming year.

Welcome back to Chas. 3IB, of Dimboola. Chas. recently returned from the islands and has some very nice Collins s.s.b. equipment. He is heard in the zone hook-ups.

Neville 3AAQ, of Ararat, recently entered double harness, so has another interest at the moment besides Ham Radio, but hopes are held of his return to the fold in the not too distant future.

George 3GN is now the possessor of an FL100B s.s.b. rig and is making with the "duck talk". Getting good results too, but the a.m. rig is still in operation and used frequently. Hopes to put up a quad like 3AQD.

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QUEENSLAND

Activity in the Sunshine State has been running very high over the past several weeks. The major event was the 8th Jamboree-on-the-Air. Vince 4VJ and a team of other fellows, together with loads of h.f. and v.h.f. gear, antennae, etc., and some hundreds of Scouts, were located down at Mt. Cotton where a good time was had by all. Several VK4s took their gear to Scout shacks—excuse me, dens is the right word there. And lots of other fellows had groups of Scouts come to their QTH for contacts. Activity ran very high on all bands and some excellent contacts were made. Scout Headquarters' station, VK4QH, was never off the air except when the duty operator dropped off to sleep.

The VK-ZL DX Contest really stirred up activity and many VK4s really went for the contacts. During the contest there were openings on both 15 and 10 mx. The c.w. section was really a surprise, conditions being exceptionally good on 20 mx and the band was open the full 24 hours.

Al 4LT has a new SX117A rx and it perks f.b. and really helped him a lot in the contest. Doc 4MO had a spot of transceiver trouble, but quite OK now and has a beam to go up shortly—so more QRM, hi. Don 4GP has his quad up to 60 ft. boom height and is arranging the guy wires to resonate on 40 and 80 and to act as inverted vee dipoles. Norm 4TY, Arthur 4PX and Harry 4HR always seem to be snooping around on 20 and really pounce on the rare DX. Reg 4VX having good success with ground plane antenna on 20, with feed point 25 feet from ground, and gets a small share of the DX.

Eddie 4OW on a mobiling holiday to the southern States and operates 20 and 40 mx s.s.b. mobile. Tom 4TT getting out well on his dipole; has a new beam on the way and will put it up about 50 ft., so will be in the DX race too. Peter 4PJ just completed a interlaced 20-10 mx beam which works out f.b. and is now putting a 15 mx 3-el. beam just below. Peter still operating a.m., but he will get DX in spite of this. Evan 4EF is running around with a nice triband commercial transceiver in his "bomb" together with a nice three-band adjustable whip. Evan can change bands whilst in motion by quickly reversing the car so the whip comes forward and can be caught from the rear window and screwed up or down to the right band.

Jack 4SF, up Ipswich way, getting a bit of good DX now and again. Ron 4RG building up a transceiver from commercial copy. Chilla 4SD certainly has his quad working out Chinchilla way. All the DX I call goes back to him, hi! Wednesday night is 10 mx "Rude Remarks Club" night and up to a dozen fellows can be heard on about 28.6 megs. every Wednesday night from 8.30 p.m. on hurling insults at each other. John 4RZ, down Southport way, comes in on the 10 mx net most nights, but is too young to throw compliments at the other fellows. Alf 4OL mobiling in the country for few weeks and looking for contacts on 7.068 Mc.

The Ipswich and District Radio Club are progressing well with their club house. The ground has been made available to them. Working bees have cleared the site and the plans for the building are now before the local council. My spies tell me that they were presented with a nice lot of windows from a building being demolished, so the plans for the club house had to be drawn up around the windows. Amateur members of the club have their weekly net on about 14.15 megs. every Thursday night around 8 p.m. and 4RG, 4SF and 4HW are amongst the most consistent in the net. 73, Reg 4VX.

TOWNSVILLE AND DISTRICT

This being the New Year, let's hope that it will be much better than the one that has gone. Not only in DX ways, but first and foremost that the W.I.A. grows bigger and better than ever. That New Year's resolutions be made that we all stick our shoulder to the wheel and try and make the decisions of the executive come true, insofar as that the I.T.U. upholds the standing of the Amateur.

Wonder if by chance that the Radio Club in Townsville could once again come to life. What a good thing that would be as we are getting older and perhaps wiser, we could all get together again and let bygones be bygones. No doubt with new Amateurs in the district, the club could really get going. New blood would infuse it and here's hoping that ere long I will be able to report that it is again going good and strong like when it was first started.

Nothing much to report in the way of news of the locals, but I can still hear them. The other day John 4DD called on 28 megs on phone, no takers so he tried c.w. Yes, I can still read that mode. Merv. 4DV hopes to outshine us all and crack the D.X.C.C. within the first 12 months. Quite a task, seeing how the conditions are.

Believe that Eddie 4WH will make a come back this time with commercial gear. Like myself, feels that age has caught up with him in building. Ted 4EJ heard making arrangements with that chap 2ACD for a visit early in the New Year. Who will see who last man on the chair? Vina will surely have to put her foot down. Short skip has prevailed and Hal 4DO from Rocky called in on the round table, while Yeppoon was also heard at odd times. Jim 4ZO in Collinsville making appeal by letter to work him on 40 or 20, but to date ship has not been favourable. So chaps, once again all the best for the New Year. 73, Bob 4RW.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division for November was held in the club rooms to an attendance of about 70 members and tock the form of the annual Xmas Party and Ladies' Night. It may appear to the uninitiated that it is a little early to hold such a gathering in November, but from our exper-

W.I.A.—VICTORIAN DIV.

CRYSTAL BUREAU

Please note that as from the 1st December, 1965, the Crystal Bureau will cease to exist. For reasons beyond our control, it has been found that it would be uneconomical to carry on with further business. All unfilled orders in hand will be attended to as the stocks become available, but all future orders for new Crystals should go direct to the suppliers.

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fence it has been found that we get a better roll-up at this time of the year, due no doubt to the fact that the usual gay and festive season has not quite begun and members are therefore not so likely to be caught up in the social whirl. This meeting night used to be solely for the menfolk, but it was felt by some that possibly the ladies might like to take part and for the past four years or so it has become known as the Ladies' Night.

However, for some reason or other, the XYLs and YLs have not responded to any extent, and the same handful of "Good and faithfuls" have been the only ones to turn up, more's the pity! Many and varied are the reasons advanced as to why the ladies have not taken to it, but it is felt by many that the main reason is that the XYLs and YLs are never told until it is either too late to attend, or worse still, until it is over. Anyway, it is a pity because the night's entertainment is well worth coming along for and a bigger attendance of the female of the sex would be an added incentive for the committee who go to such trouble in organising the night. (Maybe if the girls were told that PanSy would be in attendance, there would be a record crowd.—Ed.)

Two excellent films were screened to those present, one on the space tracking station near Canberra (I kept my eyes open for a possible sight of Ken 1KM somewhere in the background, but nothing doing!), the other on the general set-up of Woomera, both by courtesy of W.R.E., and at the conclusion of which, supper was served and the rest of the night was spent in general "nattering".

A good time was had by all and I think a determined effort should be made next year to increase the number of XYLs and YLs attending.

Incidentally, thinking along the same lines, what do the organisers of the annual V.h.f. Picnic do to attract such a good roll-up of the XYLs and YLs each year? At first glance, this excellent annual event seems to attract more of the opposite sex than v.h.f. members, and each year, at the end of the Picnic, arrangements are made among the fair sex to be sure and meet in 12 months time. It might not be a bad idea if Council got together with the v.h.f. organisers and found out the secret of their success with this side of the entertainments. Held at "Walnut Paddock" in the National Park, with oodles and oodles of ice cream and cool drinks for the harmonics, plus slides and swings, competitions with very worthwhile prizes, shady trees, water laid on, a place to park the chariot, and ample fireplaces for barbecues, the details of this annual event could be written up for pages and pages. However, as it is a v.h.f. set-up, I cannot risk being charged with intermingling by the v.h.f. scribe—so, nuff sed.

Gilbert 5GX is home from the hospital after his chassis repair and reports that he is feeling OK again, although he is still taking it quietly. When I rang him to enquire as to his health this week, he was in the midst of watching the cricket on Channel 2. What it is to be a millionaire!

I felt that when the Magazine Committee printed that photo of that old buffer from VK5 on the January issue of "A.R." that it had touched rock bottom, but now I have my doubts. Did you cop the photo on page 14 of the November issue, under "Sideband Sketches"? Gazing at this intelligent, youthful and innocent face, backed up solidly by "The Thing," well to the fore on his operating position, could one imagine for one second that he has been badgering me for nigh on seven years to "Get with the strength," and missing no opportunities to belittle me. A good photo Dud, so much so that it has joined Comps 5EF and one or two others which grace what is known in my QTH as "The single sideband room"—and on the back of the door, too!

T.v. was well to the fore on 7 Mc. the other afternoon with Mac 5-Mickey-Mouse, Murray 5-Huckleberry-Hound, and Marry 5-Yogi-Bear hooked up in a three-way. Jack 5JS and Basil 3ABJ tried to get into the act but did not remain in long, probably because nobody could think of a suitable phonetic call sign suitable for such an exclusive gathering.

Jack 4JF was a visitor to VK5 this month, but unfortunately for me he did not ring me until the last day before he left for VK3, and so once again I missed him. He was seeking the whereabouts of George 5RX and Arch 5XK, but as he was leaving the next day I don't suppose he met up with them. His seeking these two out leads me to believe that he is a c.w. addict. The last time Jack was in VK5, if my memory serves me right, was in 1958, and I only had a telephone contact with him then. Third time lucky perhaps?

OBITUARY

IVOR THOMAS, VK5IT

The VK5 Division announces with deep regret the passing in mid November of Ivor Thomas, VK5IT, at the age of 67 years.

Well known as a member of the W.I.A. (South Australia) pre-war, and as its first post-war President and Chairman, he did much to assist in the re-forming of the Division and to guide it through the difficult early years which followed World War II.

Known to all old-timers in VK5 as the "Father of the new constitution and the subsequent incorporation of the Division," he was tireless in his energy, and by his example inspired the members of his then Council to give of their best.

His main activity was on 10 metres at the conclusion of the war and his well known "skeds" on that band with the KH6s culminated in his making a trip to that area to meet many of his contacts in person.

The latter years of his life saw him ease out of Amateur Radio activity, although his interest in the VK5 Division never waned, and although his unexpected shyness never allowed him to make many close friends, those to whom he gave his friendship will always remember him for his keen interest in Amateur Radio, his efficiency and extreme generosity, and his understanding approach to the many administrative problems associated with the re-forming of the VK5 Division.

To his two daughters, Ann and Laurel, the Division extends its sincere sympathy.

A newcomer to VK5 is Tom 5GY (previously 6GY) and is now working at the B.B.S., which for the uninitiated means the Best Broadcasting Station in the State, if not VK. I have only met him a couple of times for a short period, and he seems a stout fellow and a worthy asset to the Premier State!

The Youth Movement column had a call for correspondents from the various States last month, together with an insulting reference to me. In view of the fact that I don't read this column, I cannot make a suitable reply, but Ken 1KM had better be careful, one of these days I might take an itty-bitty peekaboo and then look out!

Talking of the Youth Movement, and why should I talk of such a subject—it only helps to inflate the ego of a certain gentleman in VK1—anyway, in our own quiet way in VK5 we are doing our little bit to push the cause and if it were not for the fact that I don't wish to steal the thunder from the sub-committee, Bruce 5OR, Wally 5ZEH and John 5UL, I could tell quite a lot of the doings of these hard workers for the cause. One of these days I will let my hair down on the subject, but would he believe me?

With respect to the proposed Bill to provide for the licensing of electrical workers and contractors, soon to be introduced into the VK5 Parliament, as instructed by Council a delegation consisting of Keith 5KH, Comps 5EF and Warwick 5PS waited on the Minister of Works, Mr. Hutchens, one morning this month. In introducing the members of the delegation, Keith emphasised that it was definitely non-political and that the sole reason for its presence was to clear up a doubt as to how the proposed Bill would affect the position of the hobbyist and the prospective radio amateur, some of whom were at present associate members, the Minister having already stated the position of the licensed Radio Amateur, with respect to the Bill, in a reply to a letter from Council. The delegation then discussed the Bill from the viewpoint of the VK5 members, giving him some examples to support the remarks, and finally presented the Minister with a typed copy of suggested amendments to the Bill, as approved by Council.

Mr. Hutchens stated in reply that he first would like to congratulate the delegation on the clear and concise manner in which the matter had been presented to him and that he had received numerous approaches from University Professors and other technical people regarding the Bill, and he said that if the Bill became law, it would probably take several years to fully implement and by that time the outlook of the Government towards controls could have changed. He assured those present that the interests of the learner and experimenter would in no way be jeopardised, as he and the members of his advisory council fully realised that this was an electronic age and every help and encouragement should be given to the up-and-coming youth of the country and, at Mr. Parson's request, he gave his permission to be quoted in the Divisional column in the local newspaper.

The delegation feels that although nothing concrete was achieved, at least one or two doubts were raised in the Minister's mind, and in view of its cordial reception and the splendid manner in which Keith presented the case for the Division, the cause and status of the full and associate members of the Division has not been lessened in the eyes of the Minister.

Speaking for myself, I went into the whole situation and acted as a member of the delegation in a decidedly lukewarm manner, principally because I felt that we could possibly end up by "Playing Politics," something which our Division has never attempted in all the years that it has existed. However, I soon had a change of mind as I listened to the able and restrained manner in which Keith 5KH presented the case for the Division, and I say without hesitation that the appointment of Keith as ex-officio council member for the purpose of handling this matter was one of which council can congratulate itself upon. Comps 5EF will be the first to admit with me that he and I simply "Went along for the ride," and full credit for any results that might arise from our meeting with the Minister must go to Keith.

Speaking now as the scribe for the magazine, I cannot but help point out that adversity sure does make for strange bedfellows—can you imagine Comps 5EF and myself as fellow members of a delegation? Why we have been fighting a running battle for years on the subject of "The Thing," and it was quite remarkable that we both could keep quiet on the subject long enough to join forces for the Division. However, don't let it fool you, the battle is still on and after we shook hands—somewhat furtively on my part—at the lift door preparatory to wending our ways, I told him that Mr. Hutchens would never know how close he had sat to a prospective Xmas Dinner, always assuming of course that his taste ran to duck! His reply would have done nothing towards improving the image of Amateur Radio in the mind of the said Mr. Hutchens!

Heard Doug 8KK on 14 Mc. the other late afternoon and with a tip-top signal at that. He is in the throes of completely re-building his v.h.f. gear and does not expect to be a contestant in the Ross Hull Contest this year. Nice to hear you OM, and using "The Thing," too!

Also heard Les 5LC and Charlie 5ON on 14 Mc.—yes, you guessed it—on "The Thing" also, and the list of DX they were reading out to each other as worked for the week sounded more like a DX column for the magazine. Strangely enough, Les worked most of his in the early mornings and Charlie worked most of his late at night. What it is to have such enthusiasm!

Talking of "The Thing," and only I realise just how much I am doing that lately, much to Comps 5EF delight, I never realised for even a second just how seriously the VK4s would take me in my reference to "The Thing." I picked up the local paper the other morning and there staring me in the face was the headline—"Brisbane searches for 'The Thing'." Reading further, I was amazed to note that 5,000 ghost hunters swamped the city's Victoria Park to search for "The Thing," and many St. John Ambulance men tended the people who were hurt in the crush. Well, how about that? My one-time reference to their never being able to grow a straight banana is now small time just fancy, 5,000 people looking for "The Thing." Did you ever!

Well, here we are again at the commencement of a new year and as always I take the opportunity on behalf of the Council and members of VK5, to wish all Radio Amateurs and its well-wishers, a Happy New Year and may it bring you everything that you desire. Also at this time, old fogies, such as me, always have their arms twisted to give to OMs and XYLs a little advice, all for free. If you are wondering just what are the qualifications required before one can give such advice, then I can only quote an authority, whose name I have conveniently forgotten, who once said, "To give advice to the young, one must possess three qualifications grey hair, to give an air of wisdom and experience; a corpulent stomach, to give an air of success and well-being; and, last but by no means least, haemorrhoids, to give an air of having suffered in this vale of tears, and therefore being able to understand all."

Possessing two of these qualifications, and a good chance of one day soon possessing the third, I now pass on my advice for 1966—Since you must drink and apparently cannot refrain from doing so, why not do your drinking at home, possibly in your shack?

Give your XYL £7/12/- and tell her to ring the local hostelry and have four cartons of

the amber liquid delivered to your home. There are 240 drinks in four cartons. Buy all your drinks from your XYL at 1/- a glass.

At the end of seven days (when the cartons are gone) your wife will have £12. She can then buy four more cartons and bank the £4/8/0 balance. If you live 20 years and continue to buy all your drinks from your XYL, then pass out with your boots on, your widow will have approximately £4,576 plus interest. Enough to bring up your children, pay off the mortgage on the house, marry a decent man and forget that she ever knew a "no-hoper" like you. See you in 1966—not you Pincotti 73, de 5PS—PanSy to you.

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WESTERN AUSTRALIA

News is rather scarce this month due to several causes. The main one being very poor conditions, particularly 40 and 80 mx, however the higher bands are exceptional at present particularly 10 and 15 mx.

Absent from the bands for quite some time is John 6GU. On the grape vine we hear that your work has taken you to the beautiful north of the State, "temporary period of course." Clem 6CW has sported a rather classy rx, it has the appearance of a Collins but I don't think it's one of those. Herb 6XO returned safely from VK5 trip and by all accounts Herb and family had a most enjoyable time and fine business trip both ways. Don't hear much activity lately from the lower region of VK6—that is Albany. It is most unusual not hearing 6KJ's solid signal.

The country stations of this area, 6PH, 6XW, 6XY along with John 6ZBY have made contact —Narrogin to Perth—on 6 mx, also worked mobile Bunbury. We do note Pat 6PH takes a leading roll in the bush fire emergency link. Congrats., Pat. Ian 6XX must be all bottled up. We will have to organise a fox hunt or something, to start off at QTH of Ian 6XX. "Well that should at least stir his enthusiasm."

We do hope that the holidays will bring a few mobile units into action on the lower bands and create a little more activity in VK6. If John 6ZBY gets his c.w. complete, he would certainly be an active d.c. band man. Could then call him elusive mobile. He sure covers a vast area in his travels.

On behalf of the VK6 Council, I wish all readers of this column all the best for a very Happy Christmas and Prosperous New Year 1966. 73, Bob 6KN.

— . . . —

TASMANIA

We welcome three new call signs during the month of November, namely 7RG, Lee Gunther, ex W6THN; 7LY, Mrs. Anne Jenner, ex VK7ZYL, and a call sign to Joe Gelsden, which eludes me at time of writing. Congratulations to all three.

Campbelltown was once again the site for one of the major events in the calendar of Amateur Radio in VK7, namely the Hamfest which took place on the week-end of 27th and 28th November. We were blessed with excellent weather, particularly on the Sunday, and a great crowd attended that day as a result.

Success at this function was due to many, but I single out the following for outstanding service: Dave 7ZAI organised the supply of tx's for the various bands for the exercise on the Sunday; Geoff 7ZAS did more than his share, both in bringing gear to Campbelltown, helping in its erection, and afterwards in its dismantling, and in the general necessary but not so obvious jobs needing to be performed in between; Max 7MX was a very genial leader for the children's activities during the Sunday.

Mobile operation during, before and after the Hamfest was most pronounced. We believe that about 40 mobile stations were heard. The 6 mx mobiles predominated, but 80 and 2 mx mobiles were also there in reasonable numbers.

On behalf of the Division, I convey the best wishes of all of us to Dave VK7ZAY and Mrs. Berry upon the celebration of their marriage on 20th November, and we wish them every happiness for the wonderful years to come.

I wish to bring before all members the fact that three members of Council have indicated that they will not be seeking re-election at the next Council elections in March 1966. If you feel you have a place to play in the administration of our Division, then it looks as though the opportunity to serve your fellow Amateurs is at hand.

Finally, I apologise for the notes being written by me, but Geoff 7ZAS has been far too busy in business and Divisional affairs to pen these notes for this issue. Best 73 and good hunting during the holiday season, Ian 7ZZ.

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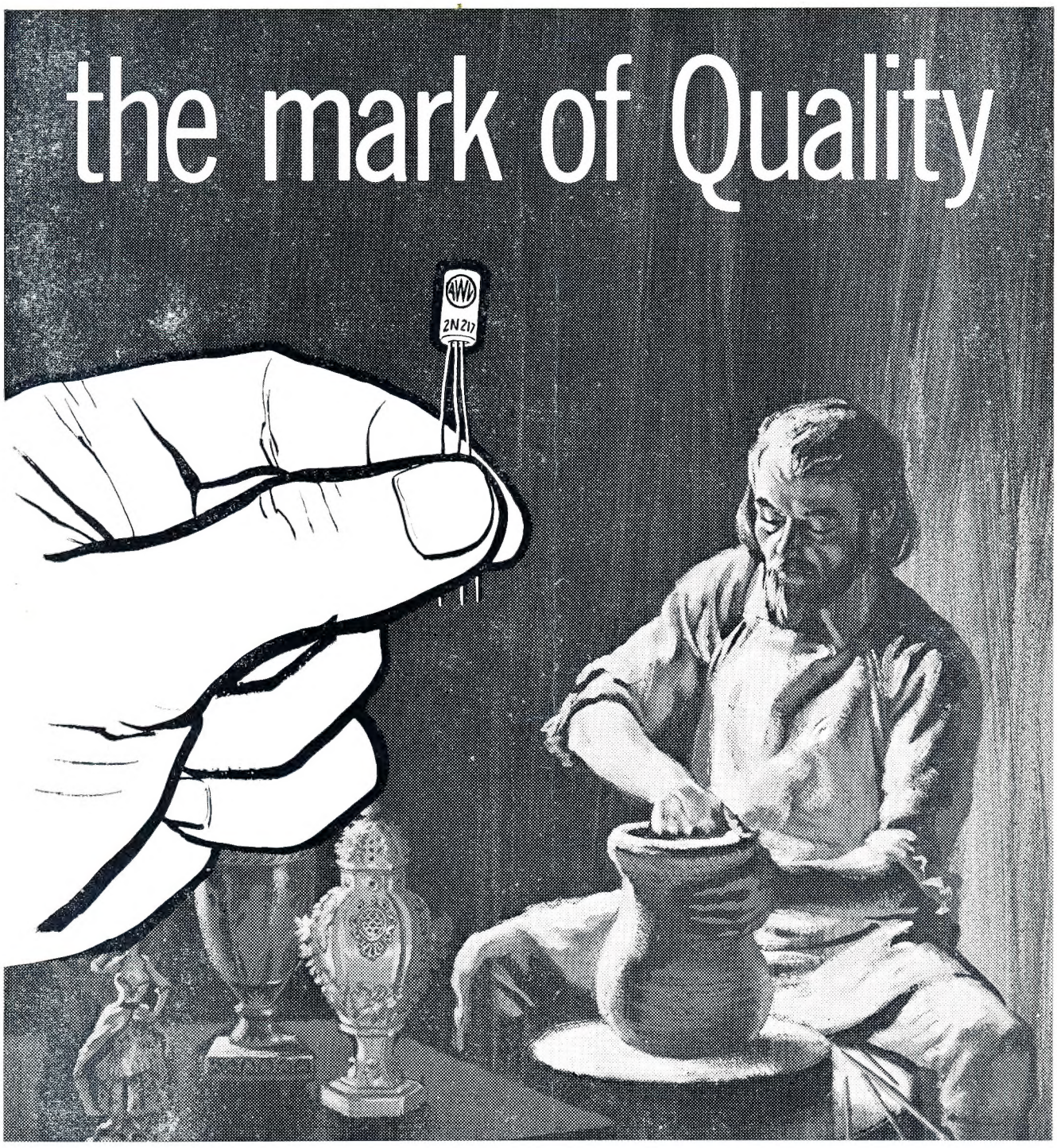

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